The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

VOL. 23. No. 13-A TULSA, OKLAHOMA, AUGUST 21, 1924

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Oklahoma Crude Flood Causes Increase

Average daily production in United States week ended Aug. 16, 2,046,577 bbls. Gain over previous week, 7,826 bbls.

Tonkawa's New Production from Deep Sand Wells Sufficient to Overbalance All Declines in Other Areas

By James McIntyre

Highest daily average estimated production this year, week ended Aug. 16, 2,046,577 bbls. Lowest, January 12, 1,871,143 bbls.

A further increase in crude oil production in the United States occurred last week, the average for the week ending Saturday, August 16, having been 2,046,577 barrels a day. The Oklahoma fields alone showed an increase of 13,117 barrels a day, while the increase for the entire country was 7,826 barrels a day.

The feature of the week in Oklahoma was the addition of three wells to the list of Tonkawa-Slick sand producers, bringing the total to 12, which in the 24 hours ending Tuesday morning produced in the aggregate 50,800 barrels of high grade crude. That other sensational field, Cromwell, experienced little change during the past week and the most important event was that the Berry Petroleum Company's No. 2 in Section 22-10-8 got the sand very low (3,472 feet), and immediately began filling with water and with only a showing of oil. There are six wells in the southern end of the field badly affected by salt water and two others farther north which are producing some salt water. Forty-one new locations were made in the field and these wells are expected to be in about the middle of October. A number of wildcat tests in the district which contains the Cromwell, Wewoka and Pappoose fields are in the sand, producing gas in large volume or oil and gas, and adding to the importance of that wonderful area.

In Kansas there was little of interest in the course of the week aside from new work started in the areas in Cowley and Montgomery counties where recently opened pools give promise of much new production during the closing months of the year.

Drilling in the Gulf Coast fields continues to diminish but the daily production remains above the 80,000-barrel mark. A drop in the production of the Luling Field was mainly responsible for lowering the average of the Southwest Texas fields over 6,000 barrels a day. The best well reported in the Gulf Coast was a 1,100-barrel producer in the West Columbia Pool.

In East Central Texas new wells in the Richland district keep production about even. Richland could produce more oil but operators there have been induced to take their time in the development of the field with general crude conditions as they are.

PRODUCTION IN THE UNITED STATES

Estimated daily average production in the oil fields of the United States for the week ended August 16 and a comparison with previous week, follows:

	Aug. 16	Aug. 9
Oklahoma—Northern Fields—		
Tonkawa	62,922	48,195
Burbank	76,900	77,800
Other Osage Fields	53,500	54,115
Cushing and Shamrock	23,800	23,750
Bristow and Eastern Bristow	48,250	49,375
Cromwell	63,100	62,100
Stroud	17,980	17,400
Northern Miscellaneous	103,650	104,050
Southern Fields	71,000	71,200
Total Oklahoma	521,102	507,985
North Louisiana	58,480	55,890
Arkansas—		
El Dorado and Calion	12,910	12,685
Smackover Light	36,550	35,410
Smackover Heavy	93,195	93,200
Stephens and Nevada	3,695	3,620
Total Arkansas	146,350	144,915
North Central Texas	127,775	123,385
Powell	81,386	80,700
Mexia, Currie, Richland, etc.	45,774	48,220
Kansas	84,500	84,450
Total Mid-Continent Area	1,065,367	1,045,545
Gulf Coast	85,970	86,435
Southwest Texas	45,927	52,491
Eastern	106,900	107,100
Rocky Mountain Area	124,413	125,180
California—		
Santa Fe Springs	57,000	56,000
Long Beach	151,000	154,000
Huntington Beach	42,000	43,000
Torrance	55,000	56,000
Dominguez	23,000	22,000
Remainder of State	290,000	291,000
Total California	618,000	622,000
Total United States	2,046,577	2,038,751

INCREASE, 7,826 BARRELS

In the North Central Texas fields the Mid-Kansas Oil & Gas Company with a 300-barrel well showed the best new producer in the south end of the field. The most activity in the division is centered around Cross Plains in Callahan and Brown counties where there is a semi-shallow development in which oil men and companies of moderate means can operate. The Archer County development is showing signs of slowing up.

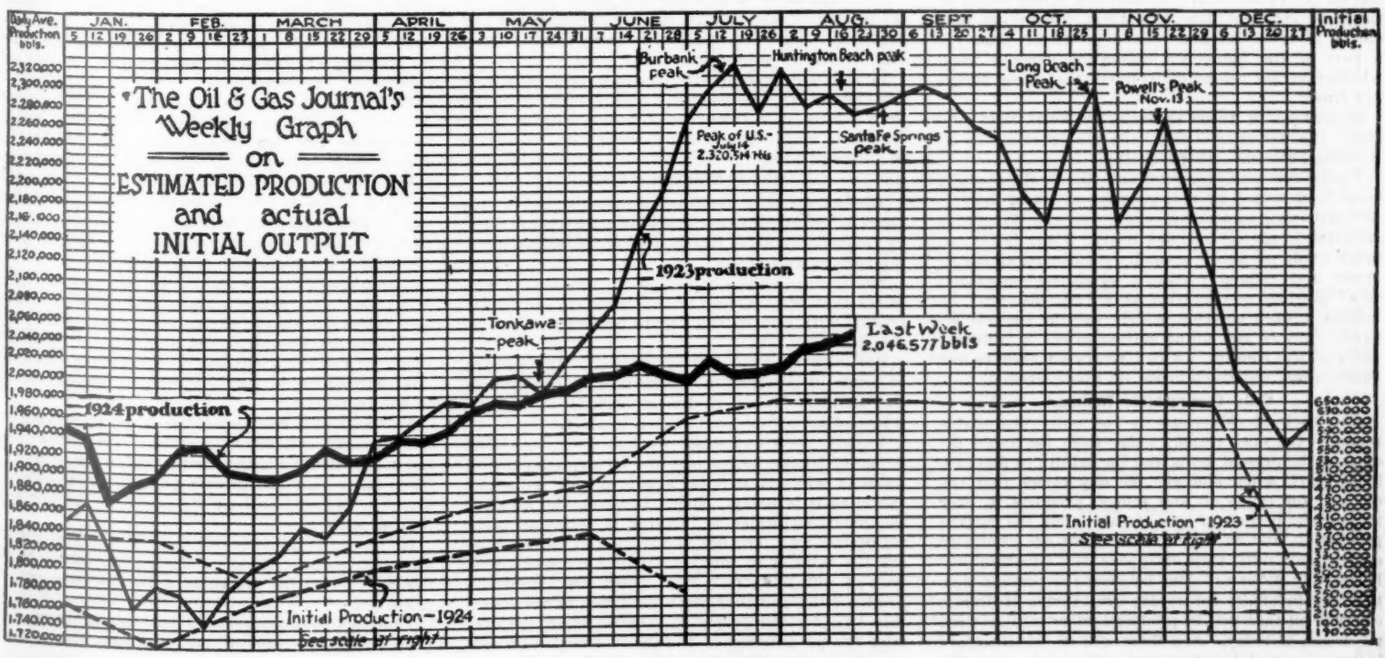
Cotton Valley is responsible for the increase in production in the Louisiana fields, as the general territory shows a falling off in field work. The Fortuna Oil Company brought in a well in Cotton Valley that started at 333 barrels an hour. It was shut in after eight hours to put on a choker and when reopened failed to flow. The same company finished a 3,000-barrel initial producer which later was permitted to produce 2,000 barrels choked in.

There was a little increase in production in Arkansas but none of the completions in any of the fields there were of a character to excite much interest.

In the Colorado fields it is important to note that the fire at the Union Oil Company's big gas well at Wellington was extinguished and that the well is showing oil. The same company's well in the Fort Collins district is believed to be good for 5,000 barrels if permitted to flow under the best advantage. The original well in the Craig Field, owned by The Texas and Transcontinental Oil companies produced 2,075 barrels a day last week with only 9 per cent water.

Fourteen wells were completed in the Torrance Field in California, all of them producers, but none of large output as big wells are measured on the Pacific Coast. The other fields showed little of importance in the week in review.

The general production situation from now until well into the fall will be affected largely by what Oklahoma will do. There are only two areas in Oklahoma which threaten to considerably increase their production, those being the Tonkawa area and Cromwell and its adjacent fields. Of these Tonkawa is much the more dangerous and the deep sand alone is expected to produce 125,000 barrels a day before it reaches its peak.



OverproductionMostPressingProblem

Entails Immense Losses on Industry and Gives Public Ground for Criticism. Curtailment Declared to Be the Only Remedy

By Charles E. Bowles

Regardless of what Congress, our State officials and the owners of 15,000,000 motor vehicles think of the oil business, the fact is pretty generally known that the industry itself recognizes that the present situation is far from satisfactory—both internally and externally.

Internally, the industry has produced too much crude oil and too much gasoline—for its own good.

Externally, its "point of contact" with the public, the filling station, has been such that the general impression of probably the greater part of the people of the United States is that there is something fundamentally and radically wrong with the entire oil industry.

The most unfortunate angle of the public's attitude is the fact that it knows so little about the oil business that it doesn't know what is right about it, and what is wrong.

Unfortunately for both itself and the industry, the public's financial education in oil has come largely from oil stock promoters—and obviously has been highly unsatisfactory. Its education in gasoline and lubricating oil has come almost entirely from filling station employes—and, with rare exceptions, they have fallen far short of the marvelous opportunity that the filling station affords for the favorable constructive shaping of the public's attitude toward the industry.

Fundamentally Sound

Up to the present time the public hasn't had it "hammered home" that, aside from producing far too much crude oil and gasoline, the entire oil industry is absolutely and fundamentally sound.

It doesn't know that the industry has lost far more, through the broken prices that have always followed overproduction, than it has lost drilling dry holes.

And the public doesn't know that through the keen competition for business, by far the greater part of the losses from broken prices have been "absorbed" by the industry itself.

And it doesn't know that the fluctuations in filling station prices are nearly always the direct result of the slow ebb and flow of current production plus stocks of crude oil and refined products. And yet a part of the industry's reputation depends upon whether or not the public believes that these things are true.

Regardless of these external problems that confront the industry today, the real problem is its internal problem—overproduction.

Facing the issue squarely, and that is the starting point from which all real progress is made, there is obviously one underlying cause for the dangerous situation in the oil business today: There is far too much crude oil above ground. Staggering stocks of crude and refined products, producers—especially small producers—operating at a loss, insolvent refineries, broken markets, widely varying spreads between refinery and filling station prices in different parts of the country, all can be traced back to one basic cause; too much crude oil above ground.

Only Controllable Remedy

And back of this cause is the only controllable remedy—the only remedy aside from the rapid decline of the present fields and the failure to find new fields. "If, when and as" the day comes that the demand for crude oil and refined products is, over measurable periods of time, greater than the current production, and as a result our stocks are gradually drawn upon until they disappear, the situation will be entirely different. But between the present time and that indefinite future day are billions of barrels of crude oil that will be produced, more billions than we dream of today. And there will be developments in cracking and blending that will slowly push the present 30 per cent recovery of motor fuel up to probably 50 or 75 per cent—or more. And new type internal combustion engines will give two or three times the mileage that cars are getting today. And finally, there are billions of barrels of shale oil locked up in the vast shale deposits of Utah, Colorado, Wyoming and Montana that only await the pinch of necessity to pour out more billions of barrels of oil than will ever be taken from the oil wells of the United States.

So why worry about enough oil? Today's problem is "too much oil." Yesterday's problem was "too much oil." And if the producing end of the oil business does not or can not, pull itself together to the point of holding its production of crude oil within reasonable relation to the demand for finished products, then the same problem that has faced us for years, and that faces us today, will face us next year—and just as long as we insist on overproducing.

Decline Is Slow

Of course if our present fields decline rapidly and at the same time we fail to find new sources of supply, our surplus stocks will slowly disappear. But our present fields are declining slowly and new production is so plentiful as to be menacing. And if, in the face of huge stocks, slowly declining fields, too large current production and the year's consumption more than half gone we continue to overproduce, the industry will not only suffer a large direct money loss but will furnish the public with further proofs of its failure to control its production of raw material.

It is probably true that, from 1859 to the present time, it has cost the producers of crude oil from three to four billion dollars more to produce the oil than they have received for it. And while a part of this three or four billion dollars is chargeable to "dry holes," a larger part is chargeable to the low prices that have resulted from overproduction.

Disregarding the filling station price of gasoline during 1923 it is probably true that the producers of crude oil received $200,000,000 less for their crude than they would have received if it had been produced with a background of rather "lean" stocks in storage.

And regardless of whether the public profited by the producers' loss in 1923, the fact remains that the producers lost "potentially" probably $200,000,000, due directly to overproduction.

In a broad general way, the law of supply and demand operates indisputably and inexorably in the oil business—even though some people seem to think that it is inoperative if the price of gasoline varies in different areas.

Below Production Cost

The law not only works all of the time, but during times of overproduction it works with brutal force by frequently cutting the price of crude oil far below the cost of production.

And there is no power, outside the producers themselves that, with safety to the industry, can be entrusted with even attempting to control the production of crude oil.

But without some sort of control of the amount of crude oil brought to the surface of the ground, the industry faces recurrent periods of chaotic prices of both crude and refined products.

Twenty years ago when we had no automobiles, no motor trucks, no tractors and no airplanes the oil industry was not so vital a part of our industrial fabric as it is today. Today however, the mind of the American people is thinking in terms of rapid transportation. The car, the truck and the airplane are the vehicles of this idea that is an inseparable part of our industrial life. These new industries are too vital, and they mean too much to our American life, for the people to exercise much patience with the oil industry if it fails to function in reasonable accord with the needs of other industries.

Regardless of what the oil industry thinks of itself, the fact remains that in the mind of the automotive industries and of the people of the United States as a whole gasoline and lubricating oil are regarded as essential, but not dominating, factors in the industries that use them.

With this idea clearly in mind, it is obvious that these other industries are going to take an active interest in the oil industry whenever its internal condition becomes such that its external relations with the other industries are variable and unsatisfactory.

Task for Industry Itself

The menace of this situation is that the people that are trying to take hold of the industry and "iron the wrinkles out of it" know almost nothing of the industry, its needs and its limitations. What they think they know is that the industry can't stabilize its producing, manufacturing and marketing ends. And dismissing all thought of any possible disposition to make political capital out of this situation, the fact remains that the automobile, truck, tractor, airplane and other industries that use petroleum products, have too great interests at stake to let the oil industry run amuck.

Our industrial development has become so vast and so complicated, and the interpenetration of industries so far-reaching, that chaotic or even seriously disturbed conditions in one industry are immediately felt in the wide range of industries that are closely related to it.

The automobile, and the kindred "internal combustion engine industries," represent billions of dollars of invested capital and their products reach almost every household in the land. They have one place, and only one place, to which to look for their fuel and lubrication—hence they have an intense interest in the oil business. But this interest is confined almost wholly to assuring themselves of a qualitative and quantitative supply of gasoline and lubricating oil, at fair prices—leaving the industry to solve its own internal problems.

Need for Stability

If reasonably stable conditions and prices had prevailed in the oil business, and the motorists of the country had become accustomed to paying say even 35 cents a gallon for gasoline, with the quality the same and the price about the same, and no "price wars," the public would have accepted the oil industry at par—and there would have been no thought of "investigations."

But when the public is served by an industry whose raw material ranges from $3.50 to $1 a barrel and whose gasoline ranges from say 25 cents a gallon down to "price war" prices, it is only natural that the public will eventually come to the conclusion that these violent fluctuations are the result of one of two conditions within the industry: Either that the industry can't control itself—or that it is too well controlled—and is manipulated.

The industry would indeed be in a serious situation were the great mass of the people, or the Government to finally arrive at the conclusion that the industry is manipulated, and that the prices of crude oil and refined products are purely artificial—and changed at the will of powerful interests within the industry.

To those who are in position to know, nothing is more clearly established than that the industry is not manipulated, either from within or without. They know that the greater part of the trouble is directly traceable to lack of control of the production of oil.

It is not too much to say that 80 per cent of the financial troubles of the producers, the refiners and the marketers are traceable to overproduction of crude oil.

Thorough overproduction, and the piling up of huge stocks of crude oil, the producing end of the

(Continued on Page 113)

Standardization Session in September

Board of Directors of American Petroleum Institute Will Probably Act on Reports of Two Committees

By L. M. Fanning

Institute to Act on Standardization

When the board of directors of the American Petroleum Institute holds its next meeting, probably early in September, for the primary purpose of acting upon recommendations of a committee now working out a plan for public education on oil subjects, it will also probably act on the reports of two committees on standardization of oil well equipment which are now virtually in final shape. The reports that will come before the board are expected to be those of the special committee on the standardization of specifications for steel and iron pipe for oil country use, of which J. Edgar Pew, vice president of the Sun Oil Company, is chairman, and of the special committee on the standardization of cable tool joints, of which the late Grant Hubley, vice president of the Oil Well Supply Company, was chairman. Favorable action on the part of the institute board will be the final step in putting standardization as regards these two phases of equipment in effect and will mark the first concrete result of the standardization movement which is now going ahead rapidly. It is expected that the recommended standards will be made public in final form immediately after the board takes its action.

* * * *

Important Conferences During Exposition

Meantime other committees on standardization are making substantial progress toward agreeing on standards, and other reports will be ready for final action by the board at the annual meeting of institute, which will probably be held in December. C. A. Young, head of the institute's division of standardization, who recently returned to New York after holding conferences and meeting the various committees in different parts of the country, reports that excellent cooperation is being given the movement by equipment manufacturers and that there is constantly widening interest on the part of users. Important conferences will be held in Tulsa preceding and during the exposition in October when it is expected several committee reports will be along far enough so that final agreement will be reached and the reports be ready for submittal to the board in December. All the members of the general committee on standardization will probably be in attendance at the Tulsa conferences including Mr. Pew, Captain J. F. Lucey, national chairman of the special committee on the standardization of rotary drilling equipment; H. J. Lockhart, assistant to president, Parkersburg Rig & Reel Company, national chairman of special committee on standardization of rig irons; A. B. Steen, chief engineer, The Texas Company, national chairman of the special committee on standardization of boilers, and R. D. Gwynne, purchasing agent, Gypsy Oil Company, national chairman of the special committee on standardization of belting. The Tulsa conferences will have in connection with the international exposition advantage of what is expected to be the largest gathering of men interested both from the standpoint of manufacture and user in oil well equipment, and committees will have the benefit of the advice of many in attendance at the exposition.

* * * *

Under Way for Two Years

Several committees on standardization have been functioning for the past two years. The special committee on standardization of specifications for steel and iron pipe originally functioned as a committee of the Mid-Continent Oil & Gas Association, which was active in getting the standardization movement started. This committee now has sub-committees covering different producing territories as well as a sub-committee of pipe manufacturers and sub-committees of the American Society for Testing Materials. The special committee on the standardization of rotary drilling equipment, of which Captain J. F. Lucey is national chairman, is also now a countrywide organization. The division of standardization of the institute, of which Mr. Young is director, was created as a result of action by the board at the last annual meeting in St. Louis to cooperate and assist in correlating the standardization and simplification work already under way. A plan for carrying on the work was drafted and recently announced, the fundamental purpose of the plan being to bring about the adoption of such specifications and methods as meet with practically unanimous approval of the producers of crude oil and the manufacturers of equipment. It is stated that it is not the purpose of the plan to impose specifications upon persons not desiring to use them, or to carry the standardization to a point where there is danger of interference with individual initiative and with the progress of invention.

* * * *

Agencies Carrying on the Work

The agencies through which the work of standardization is being done comprise the board of directors of the institute, the general committee on standardization, special committees on standardization, and the director of standardization. The board of directors is the governing body of the institute and as such has authority to direct the work and to adopt, modify or reject proposed A. P. I. specifications and standards. It may act through committees of the board, but no specifications nor standards shall be considered final except when approved by the board itself in accordance with the by-laws. National chairmen are designated for special committees on standardization. The function of the special committee is to canvass the industry as to the desirability and practicability of standard A. P. I. specifications in relation to subjects referred to them, and to recommend to the general committee on standardization what action shall be taken. The general committee consists of the national chairmen of the various special committees. Its function is to consider all reports of the various special committees and to make final recommendation to the board of directors. The personnel of the general committee has already been referred to in connection with the Tulsa conferences. The board of directors of the institute has selected a committee on standardization comprising the following: W. S. Farish, chairman; Captain Lucey, E. C. Lufkin, J. E. O'Neil, A. A. Moody, F. H. Hillman and R. L. Welch.

* * * *

Progress by Various Committees

As the work of the various committees and subcommittees progresses, reports are made and disseminated for information and criticism. The institute has just issued a progress report of the special engineering committee appointed by W. W. Fondren, chairman of the subcommittee on standardization of rotary drilling equipment, which held a meeting in Pittsburgh, Pa., on July 9. Those present at the meeting were E. E. Greve, chairman, chief engineer, Oil Well Supply Company; H. M. Harris, chief engineer, Lucey Manufacturing Corporation; D. S. Faulkner, president, Union Tool Company; H. W. Fletcher, chief engineer, Hughes Tool Company; E. H. Williams, representing National Supply Company, and C. A. Young. Following is a digest of the subjects discussed and decisions arrived at:

It was unanimously agreed that the V type of thread for box and pin of rotary tool joints be discarded in favor of an Acme type of thread. It was decided that we would recommend that all rotary tool joints such as would be adopted by the A. P. I., be known as A. P. I. standard.

It was decided to use the same type of thread on all sizes of joints. The box and pin specifications calls for the Acme Type of thread made perpendicular to the taper and the tops of threads made parallel to the axis of the joint calling for the building up of the top of the thread as now made by the Hughes Tool Company; the tops of all threads to be rounded off with a 1-32 of an inch radius; the taper of the threads to be 3"—the taper to be figured from the large diameter of the joint.

The above type and thread would have the same tooth form and angle as now made by the Hughes Tool Company, but the tooth would be built up from the high point so as to make the top of tooth parallel to axis of the joint. The joint will call for a 3-degree taper in place of the 3½-degree as now used on the Hughes joint. It was recommended that Mr. Fletcher design this new thread and submit drawings to the committee for approval.

Considerable discussion was given to Fish Tail bits which were discussed at the second day of our meeting. It was unanimously decided that we recommend a bit with shank so constructed as to permit the cutting thereon of either a shouldered or friction joint. It was unanimously agreed to adopt the 5 by 6-4 thread as now being used on bits being operated with 6" drill pipe. The 5 by 6-4 thread would be the shouldered joint and would measure 7¾" O. D. On other sizes it was decided that E. H. Williams make blueprints laying out Fish Tail bit threads for bits to be used in connection with 3" and 4" drill pipe—the layouts being based on 2½" to the foot taper, and five threads to the inch; these blueprints to show both the friction and shouldered joints.

It was decided that all drill collars be made with a box on the lower end carrying the same thread as used on the bit, and a box at the upper end threaded so as to accommodate a tool joint pin.

* * * *

Grief Stems Considered

Two designs of grief stems were considered—the square and the fluted. The sizes recommended of the square type are as follows: 7", 4¼", 3½" and 3". The sizes of the fluted type recommended are as follows: 7", 6" and 5¼". It was decided to recommend that grief stems be furnished with upper and lower couplings attached; the upper coupling on the 6" square and 6" and 7" fluted to have box thread for connecting to pin having the following dimensions: 5 by 6 — 4 threads, left-hand—threads to be of the flat V type.

The coupling on lower end of grief stem to carry a pin, which pin is to be 5 by 6 — 4 right-hand Acme thread, the same as used on 6" tool joints. The 5¼" fluted and 4¼" square to be equipped with same design of couplings as called for on the larger stems, but with the upper coupling carrying a box to accommodate a 3½ by 4½ — 5 left-hand flat V type of thread; the bottom to carry a pin having the acme thread, the same as used on the 4" tool joints. The 3½ and 3" grief stems to be considered as special.

It was decided that we recommend that tapers of spiders in rotaries, in which spiders slips are used, be made 4" per foot. Due to difference in designs and contemplated changes which no doubt will come up in rotary construction, it was impossible to definitely decide on any diameters.

It was unanimously decided that the following sizes of hoists be recommended, which sizes are named in accordance with the diameter of the drums and line shafts; 7" drum —6" line shaft—this to be considered as special.

The following three sizes to be considered as standard: 6" drum, 6" line; 5" drum, 5" line; 4½" drum, 4" line.

It was decided to recommend the size of the A. P. I. standard forged steel hook be stamped with size of hook, which size shall be determined by the diameter of the shank, immediately below the crosshead.

Oklahoma Refinery Prices Advance

Most Grades of Gasolines, Kerosenes and Fuel Oils Higher. Shortage of Tank Cars Factor. Five Cents Offered for September Wax

By C. O. Willson

The Group 3 (Oklahoma) refined market during the past week witnessed a general advance in practically all products with the exception of lubricating stocks. Prices on a majority of all grades of gasolines and kerosenes are ⅛ to ½ cent higher per gallon with a 5 cents a barrel advance in fuel oils. Blends and the higher gravity gasolines including naphtha had not undergone any general price change up to Tuesday, although there was evidence that this would materialize in the fact that several refiners were asking the high rather than the low price of the usual ¼-cent spread.

The price advance got under way the latter part of last week and with the opening of the market on Monday the sellers again presented practically a solid front in the endeavor to obtain the higher quotations for new business. Late Monday further encouragement was given in the gasoline situation when Cosden & Co. announced that they would advance their prices ¼ cent on Tuesday both for resale and direct to the trade sales. The company had been selling at 7¾ cents for U. S. Motor and 7½ cents for 56-58, 450 to the trade with the usual ¼ cent reduction for resale. The ¼ cent advance on Tuesday brought their prices in line with the general market of 7¾ to 8 cents for U. S. Motor gasoline, a price which a majority of the companies adopted the latter part of last week or early Monday.

Markets Tightening

Along with the straight run products natural gasolines again advanced. All grades are from ¼ to ½ cent higher with little available for spot shipment so far as Group 3 is concerned. The kerosene and fuel oil markets also tightened and buyers desiring immediate shipment found it unavailable except at the higher prices previously explained.

The advance in gasolines and kerosenes is explained as largely a development of the heavy movement of the former product. Ever since the first of July there have been those in touch with market conditions who have predicted that the gasoline markets would "tighten" regardless of reductions in the crude and gasoline tank wagon markets, due to the fact that July and August are the two main gasoline consuming months of the year. They believed the demand for gasoline would be so great that, regardless of general conditions in the oil industry including gasoline, the sellers faced with a tank car shortage would at least be able to maintain firm prices. It now appears that these market observers were correct except that the situation they outlined did not develop for six weeks later than they expected.

August, according to the Bureau of Mines figures, is uniformly the peak month of the year in gasoline consumption based on the movement from refineries, the average shipments being approximately 11 per cent of the total for the year. Refiners in most cases only maintain enough tank cars for average shipments and it is not surprising that a shortage often times develops when the peak movement of gasoline is under way.

Car Shortage

Many refiners, the first few days of the month sold all the gasoline for delivery over the next 30 days that their rolling stock equipment can move. This situation was reflected in the fact that there have been numerous complaints during the past week from marketers and other buyers that they have not been able to secure car numbers for gasoline which they bought for delivery over the month. Some refiners have been so pressed for clean cars that they are limiting their kerosene shipments as much as possible and using these cars for gasoline. This fact in part at least accounts for advance in kerosene during the past week. It is doubtful if the demand for kerosene during the past 10 days has been heavier than usual, but refiners prefer to ship gasoline when they have the cars and buyers for that reason have been forced to pay the ¼ cent premium for immediate shipment.

Opinions vary as to just how long the situation outlined will continue. Buyers point to the heavy gasoline stocks for the entire country and predict it will be impossible to maintain advancing or even firm prices due to competition from other refining area. Sellers on the other hand point to the indisputable fact that independent refiners in the entire Mid-Continent Field, as shown by the Western Petroleum Refiners Association weekly reports, have their gasoline in good shape with very little material on hand and that largely held by a half dozen companies.

Position Stronger

Regardless of what may happen later in the year, however, when general conditions for the entire United States in regard to gasoline stocks and current supply and demand will be reflected in markets, it would seem that in Oklahoma the sellers for the remainder of August and possibly September occupy the strongest position they have held since early spring. The peak movement of August will probably continue over part of September and if no outside refiner dumps his accumulated gasoline stocks into the consuming markets of the Middle West, the shortage of tank cars from Oklahoma plants will continue. Some of the more pessimistic point to a probable crude reduction which they expect will materialize by September at least. It is apparent, however, that this development, should it materialize, would not necessarily be reflected in the gasoline market. This feeling as to the crude reduction is quite general and is based on the rapidly increasing production of the Oklahoma fields together with the assumption that the major purchasing companies will lower their present schedules before they take the crude they are now running to storage to the account of producers. This new production from the Oklahoma fields has not yet resulted in any large amount of "bootleg" crude being thrown on the market under the posted prices even in the fields with large flush production. However, many expected a crude reduction almost daily last week.

Gasolines and Naphtha

Refiners while availing themselves of every opportunity to advance their U. S. Motor and 56-58, 450 prices, did not appear so concerned about the higher gravities and naphtha. Several buyers on Monday stated they could still purchase at last week's prices. After it became known last week that the Sinclair Refining Co. had purchased approximately 4,000,000 gallons of New Navy and 64-66, 375 from North Texas refiners, several refiners in Oklahoma advanced their aviation price to 9½ cents.

The 60-42, 400 grade was also advanced by these plants. Marketers bought as low as 8½ cents last week, although 8¾ to 9 cents was still the usual market spread. Naphthas were not so active as they have been during the summer months. Blenders state that both the naphtha and natural gasoline prices are too high at the present time for them to make a blend with which they can compete with straight run gasolines and there is a marked tendency to stay out of the market as much as possible. Prices on naphthas are unchanged.

Kerosene and Distillates

The situation in regard to kerosenes has been explained. Buyers for resale who for weeks have been accustomed to purchase 41-43, water white for 4 cents and 42-43 ¼-cent higher and to raise their offers ¼-cent with several refiners refusing to promise immediate shipment even at these prices. Three buyers of 42-43 on Monday said they were unable to secure car numbers although they offered 4½ cents. They reported there was practically no material of that grade in the field. At least two refiners who sell direct to the trade advanced their prices to 4¾ cents the first of the week.

There is no change in the distillate market. There were inquiries both for immediate shipment and a flat price over the month. Reports from the Middle West are to the effect that many of the jobbers who supply the home burning trade in the fall and winter have been filling their tanks with spot purchases. If this is the case, these jobbers are apparently getting their suplies outside of Oklahoma. There are numerous inquiries for this spot business but Oklahoma refiners claim the prices are too low. They also have been slow in accepting the offers for contracts based on crude and tank wagon prices for delivery over a period of several months.

Fuel and Gas Oils

Practically all of the refiners in Oklahoma advanced their price of 24-26 fuel oil to a low of 80 cents last week. This was an advance of 5 cents and by the first of the week practically all grades had taken the same increase in price. This advance practically drove the resale buyers out of the market as they claimed that was all they could obtain from their customers. There was considerable shopping around but these buyers generally found the market "tight" in all other refining areas of the Mid-Continent. There is no doubt that fuel oils so far as Oklahoma is concerned occupy a strong statistical position. Railroads are aiding the spot market by taking out more material on their contracts. It will probably be several days before it will be definitely apparent whether or not the higher fuel oil prices are to be maintained, with this in turn depending on whether or not buyers can secure lower prices in other sections. The intra-state demand for fuel oils continues heavy.

Many sellers have advanced their gas oil prices from 2⅝ to 2¾ cents. Two or three of the large buyers have refused to accept the advance. The advance is considered a development of the higher fuel oil prices. No large orders were placed during the week.

Natural Gasolines and Blends

Natural gasolines experienced the most sensational advance of the week. The higher prices can be explained as a direct development of the large purchases, the first of the month by the Chestnut & Smith Corp. Those purchases aided the manufacturers, not only in Oklahoma but North Texas and other areas of the Mid-Continent. Grade A rapidly advanced to a low of 7¾ cents and scattered sales were reported the first of the week at 8 cents. Some manufacturers were asking the same for Grade B, but the general market was ¼-cent under Grade A prices. Some Grade C is available at 7¼ cents although several sellers are asking 7½ cents and above.

It cannot be said the manufacturers have yet convinced the buyers that the new prices can be maintained. Cosden & Co., a large buyer of Grade C, have refused to advance their prices of 8 cents delivered at their West Tulsa plant. The fact that blenders are out of the market has previously been mentioned. Several buyers expect within a few days that more material of all grades will be available and they then expect the sellers to be more anxious to sell.

Wax

Wax has also taken a spurt. It is difficult to determine just what the present spot market is for the reason that

(Continued on Page 119)

REFINED MARKET BAROMETER

A heavy movement is aiding the gasoline market at the refineries throughout the United States. Refiners in all areas are having difficulty in keeping up with their orders and this situation has already brought important advances in the Mid-Continent and Middle West with a steadiness apparent in other areas. Kerosenes are also higher in price for immediate shipment at interior points with no change in coast areas and export market. Distillates are experiencing a strong demand in most areas. There were no changes in fuel oils except in the Mid-Continent where higher prices are asked for immediate shipment. Natural gasolines are higher in the Mid-Continent and long time contracts at higher prices have been made in California. Lubricating oils are slow in all areas. Wax prices for future delivery are substantially higher in all areas.

Mid-Continent—Prices generally higher in Oklahoma and North Texas with the exception of lubricating oils, with several important advances in other areas. Export purchase by Sinclair Refining Co. of U. S. Motor and Aviation obtained principally from North Texas refiners coupled with shortage of tank cars has strengthened gasoline market in all areas. Kerosene prices are also higher in North Texas and Oklahoma. Fuel oil is strong with prices higher in Oklahoma. Natural gasolines higher in all areas. Wax prices higher. Other products unchanged.

Atlantic Seaboard—Heavy gasoline consumption with record movement from refineries has tended to steady market. No change in gasoline prices. Wax prices both for domestic and export trade higher. No change in kerosenes, fuel oils and lubricating oils. Receipts of crude and refined products greater. Bulk exports of gasoline and kerosene greater.

Pennsylvania—Prices on all products practically the same as last week. Gasoline movement good. Wax strong and prices higher. Good movement of kerosene with no changes in price.

California—Market steady. New long time contracts for compression gasoline at 12 cents which is 2 cents higher than prices prevailing last year. Large purchases of absorption grades for export. Distillates soft with no changes in price. Fuel oil unchanged.

Chicago—Decline in gasolines halted due to improved demand and prices on some grades higher. Numerous inquiries for distillates. Fuel oil firm. Lubricants slow. No change in tank wagon situation.

Gulf Coast—Prices steady after recent 1-cent reduction in neutrals which was made effective following latest decline in Gulf Coast crudes. Fuel oils and gas oils slightly lower.

New Peak Output Awaited at Tonkawa

Deep Sand Development Promises to Boost Production in This Field 100,000 Bbls.; Many Wells Nearing Sand; New Operations Started

By Ralph T. Baker

With ten wells completed in the Slick sand in the Tonkawa Field, Oklahoma producers are anticipating a production of approximately 100,000 barrels daily from this new deep horizon within the next 60 days. Of the total of 55 additional operations which have started for the deep sand, nine should be completed within a few days, and 25 more are drilling below 3,000 feet. Several new operations have been started within the past few days. Additional operations will prove necessary with the successful completion of wells now nearing the sand level.

Leading geologists who have been interested in the development of the various sands at Tonkawa are satisfied that the oil from the Slick sand is coming from the formation generally characterized as the Wilcox sand in the eastern part of Oklahoma. In the western part of Oklahoma, noticeably in the South Ponca Field, Tonkawa and other places where deep tests have been completed, the Mississippi limestone has been eroded on the top of the structures, giving the drill access to the producing sand without going through the customary 300 feet of Mississippi lime formation.

This feature is true at Tonkawa, according to geologists, who find the Mississippi lime badly eroded on top of the new deep sand structure according to the records from the wells that have been completed to date. The Tonkawa structure in the Slick sand is very steep, also, which was anticipated by geologists. Top of the sand was reached at 3,950 feet in one hole, while another well about three-quarters of a mile away got the top of the producing horizon at 4,154 feet, or a total of 204 feet lower. Difference in elevation between these two wells is small, thus showing the steep dip to the deep formation.

Not Stray Sand

Geologists at Tonkawa believe that the oil from these two wells is coming from the Slick sand, or the Wilcox sand as it is known in other parts of the State. Stories to the effect that the shallower wells were producing from a stray sand have been denied and most of the producers now are holding to the opinion that the shallower wells in the deep horizon are getting their oil from the same formation as the deeper ones. Absence of Mississippi lime in the shallower deep sand wells is accounted for by the theory that the lime on the top of the structure has been eroded.

"We find the Mississippi lime practically absent on top of the structures in Ponca district," said F. L. Aurin, chief geologist for the Marland Oil Co. "On the sides of the structures, there is an increasing thickness of the limestone. We are certain that the deep producing sand at Tonkawa is the same as the Wilcox sand in eastern Oklahoma. The black Chattanooga shale is found below the base of the Mississippi limestone. Below this formation is found the white lime (buttermilk lime in the Okmulgee area), and under this buttermilk lime is found the true Wilcox sand. Production in the Tonkawa Field from the deep horizon has been coming from the true Wilcox sand, with the exception of one or two wells which may be making some oil from the white lime."

Promises Phenomenal Output

The finding of Wilcox sand production at Tonkawa and the remarkable performance of the nine producing wells may dispel some theories which have been held concerning this sand. This Wilcox sand pool promises to produce a phenomenal amount of oil. In area also it looks as though it might be larger than the other better known Wilcox sand pools and the thickness of the sand promises to be far above the average.

The Tonkawa deep sand, according to geologists, now promises to be the greatest Wilcox sand field. The fact that this sand can be considered a lasting producer of oil is seen in the action of the Marland Oil Company's No. 6 Brett, in the South Ponca Field, which according to production men in the Ponca area, has produced more than 720,000 barrels of oil in five years from the Wilcox sand, and is still making considerable oil. Production in several of the deep sand wells at Tonkawa has increased steadily since their completion.

To T. B. Slick must be given the credit for finishing the first well to the deep sand at Tonkawa. He obtained his first production in No. 1-E Endicott, SW cor. Section 35-25-1w, on April 10, 1924, when the well tanked 1,090 barrels. On April 15, it made 2,950 barrels and was holding up with a flow of 2,710 barrels on August 13. Sand was drilled from 4,065-87 feet.

Nine Wells, 38,278 Barrels

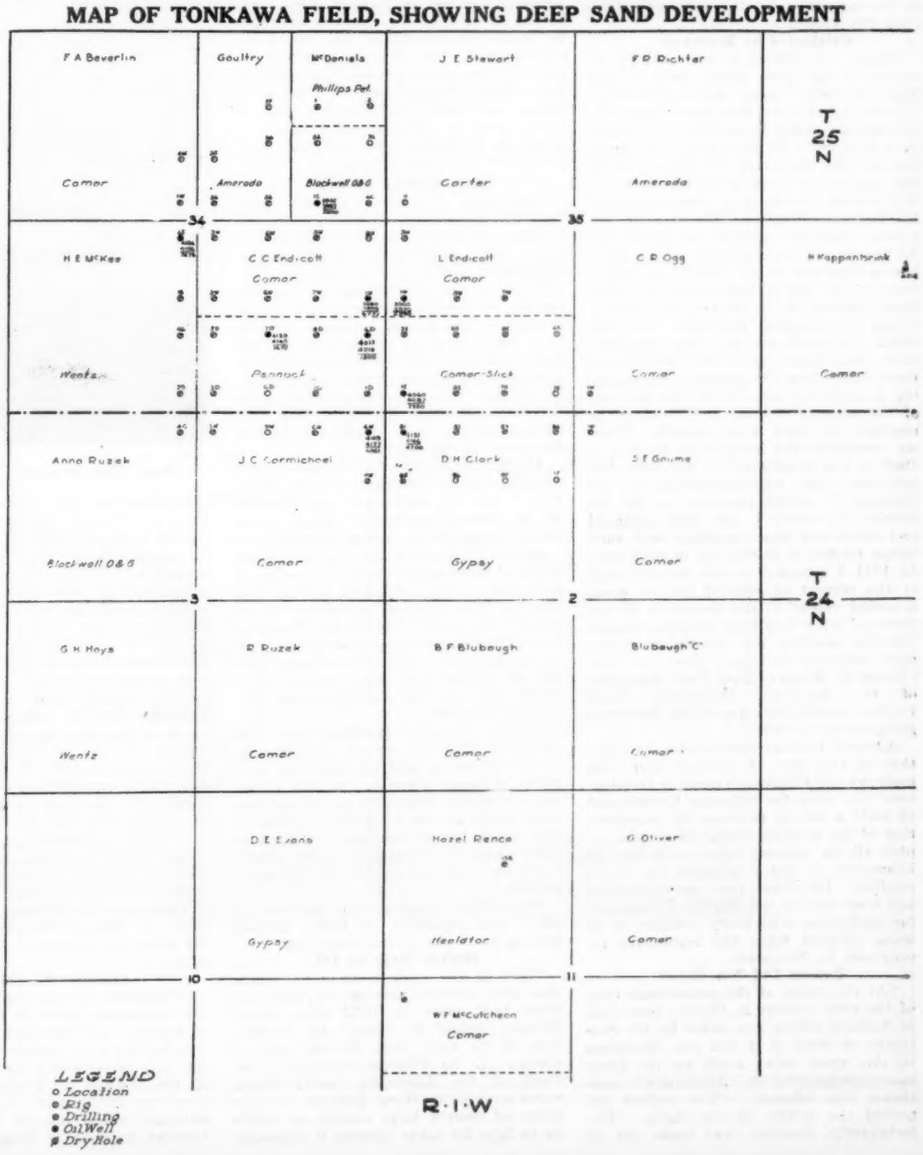
Production from nine wells in the deep sand was 38,278 barrels for the 24 hours ending at 7 a. m., August 14. Two wells were expected to be completed within a few days from that time and others were near the top of the sand and should be completed within a week. Oil from the deep sand tests 41 to 42 degrees Baume gravity.

The Pennok Oil Company finished the second deep sand well at No. 7-D Endicott, NE cor. SW SE, Section 34-25-1w, on June 8. It started with a production of 2,672 barrels the first day and increased to an output of 2,900 barrels several days later. Sand was drilled from 4,139-45 feet. The Comar Oil Company finished No. 4-W Carmichael, NE cor. Section 3-24-1w, on July 6. It started off with an output of 2,576 barrels from sand at 4,149-77 feet and on August 10 made a total of 4,061 barrels.

The gusher well of the deep sand was completed by the Wentz Oil Corp. at No. 45 McKee, NE cor. SW, Section 34-25-1w, which started with a flow of 4,246 barrels on August 4 from sand at 4,154-56 feet and which increased until on August 8, it made 7,479 barrels. The Blackwell Oil & Gas Co. completed No. 1-C McDaniels, SW cor. SE NE, Section 34-25-1w, on August 5, in sand at 3,975-82 feet. It gauged 1,638 barrels the first day and increased to

(Continued on Page 110)

MAP OF TONKAWA FIELD, SHOWING DEEP SAND DEVELOPMENT



Admiral Chester's Own Story of Project

Places in Files of Navy Department His Statement of Facts Leading to Turkish Concession and Protests Abandonment

By Charles E. Kern

WASHINGTON, D. C., Aug. 16.—The files of the Navy Department contain an interesting communication from Rear Admiral Colby M. Chester, United States Navy, the subject of which is the American concession of oil in Turkey. Incidentally Admiral Chester comments upon the oil situation of the world with a special reference to the enormous holdings acquired by Great Britain since the war.

At the close of the academic year of the United States Naval Academy there was a gathering there of the alumni over which Rear Admiral Chester presided. The Secretary of the Navy, himself a graduate of the Naval Academy, made reference to the Admiral's long career in the Navy which began as a midshipman in 1859. That incident appears to be the suggestion for this communication from the Admiral.

Originated by Roosevelt

"Some time before I was retired by reason of age from active duty in the Navy in 1909," states Admiral Chester, "I was detailed by President Roosevelt through the Navy Department to engage in a mission in Europe under the direction of the Secretary of State, which has resulted in securing for this country, if it wishes to take it, a concession from the Turkish Government for the most extensive franchise known to the world. At the time I was ordered to this duty I was attached to the bureau of equipment in the Navy Department of which Rear Admiral W. S. Cowles, the brother-in-law of Theodore Roosevelt, was the chief. Admiral Cowles was therefore fully conversant with the President's views concerning the necessity of acquiring a naval oil reserve in the interest of the national defense and fostered the measure in every way possible. Upon my transfer to the inactive list on July 1, 1909, it was understood at the Navy Department, that notwithstanding my retirement, I should continue to aid the mission to which I had been assigned and which had been negotiated with such happy results in Turkey up to that time. In 1911 I returned to this country and, at the request of admiral Cowles made a verbal report to the Secretary of the Navy of what had been done in Turkey towards securing the concession agreed upon between Secretary Root and Mr. Charles A. Moore of New York, President of the American Protective Tariff League, negotiations for which had been going on since 1908."

Admiral Chester then recites the fact that at that time a contract had been made by the Ottoman-American Development Co. with the Ottoman Government to build a line of railroads in consideration of the company being allowed to exploit all the mineral rights on a zone 40 kilometers in width covering the entire roadbed. He states that the convention had been sent to the Turkish Parliament for ratification with every prospect of its being adopted when the legislature reconvened in November.

Powers Did Not Object

"At this stage of the proceedings each of the great powers in Europe interested in Turkish affairs was asked by the Secretary of State if it had any objections to this grant being made by the Ottoman Government to Americans," continues the Admiral. "The replies approved the justice of the claim. Unfortunately, however, war broke out in Turkey in September 1911 and the American concessionaires set in motion a moratorium pending the return of peace as authorized by the contract. This status of the claim was to be maintained until the Lausanne Treaties are signed and the United States is again represented diplomatically in Turkey.

"This matter was brought up to the President at the Versailles conference by Admiral Benson, then chief of naval operations of the Navy in 1920, when it was expected that peace would soon be reestablished throughout the world, I was called to Washington by Rear Admiral Griffin, chief of the Bureau of Steam Engineering in the Navy Department with, as was stated, the approval of the then Acting Secretary of State, to see if under the law in vogue during the war concerning government ownership, an arrangement could be made whereby the Navy Department could acquire a controlling interest in the stock of the Ottoman-Development Co. holding the claim to the Turkish concession. With suitable power-of-attorney to make a deal, I reported an offer of the company to transfer to the government 51 per cent of the capital stock, free of cost, provided the necessary surveys required in the convention should be executed at public expense. It was seen, however, that as peace was so near at hand the law would be inoperative and that means of procedure was abandoned.

Deputized by Daniels

"Secretary Josephus Daniels then deputized me to call upon the Secretary of State to explain the status of our claim and to urge him to use all possible diplomatic means, so successfully carried on under the Roosevelt administration, to rescure the concession in the interest of the national defense. Secretary Colby took up the matter at once and three days later his memorable letter to the British Foreign Office was given to the public. Thus my orders issued by the Navy Department to carry out the Chester project were reaffirmed by the Secretary of the Navy."

At this point in the communication Admiral Chester remarks: "I claim, therefore, I am still working in the interests of my beloved professioñ which is seriously menaced by foreign power."

Admiral Chester refers to the importance of securing a supply of foreign oil and says it was evidenced by the fact that in 1920 Congress passed an act entitled: "An act to enable the President to secure an investigation to be made as to the petroleum resources and reproduction of petroleum in other countries" for which purpose an appropriation was made of $35,000.

"When President Harding came into power in 1921 the matter was brought to his attention and he informed me," states Admiral Chester, "of the efforts made by Great Britain to secure monopolistic rights to the oil fields of Colombia and urged me to see that the Turkish claim should be strongly held by American citizens in the interest of the whole country."

The Admiral then gives a narrative of what was occurring in Great Britain leading up to the present situation.

British Navy to Oil

"One of the most momentous events that ever occurred among sea-power nations took place in 1912 when Great Britain decided to change the foundation of its navy from British coal to foreign oil. As Winston Churchall, First Lord of the Admiralty, said: 'First, there must be in Great Britain an enormous oil reserve large enough to enable us to fight for many months if necessary without bringing in a single cargo of oil. To contain this reserve enormous installation of tanks must be erected near naval ports. Fleets of tankers have to be built to carry the oil from distant oil fields across the ocean to the British Isles and others of a different pattern to take it from our naval harbors to fleets at sea.'

" 'The oil supplies of the world, he said, were in the hands of vast oil trusts under foreign control. To commit the Navy irrevocably to oil was indeed to take arms against a sea of troubles.

" 'If we could overcome the difficulties we should be able to raise the whole power and efficiency of the Navy to a definnitely higher level; with better ships, better crews, higher economies, more intense forms of war power,' said Lord Churchill. 'In a word mastery itself was the prize of the venture. A year gained over a rival might make the difference.' "

Admiral Chester quotes other high naval authorities of the British Government showing their views as similar to those of Winston Churchill and he says a visit made in 1913 by Admiral Shade to examine the oil fields of Persia, which opened up a way to the Anglo-Persian agreement and a contract calling for an initial investment of 2,000,000 pounds, subsequently increased to 5,000,000, leading to the acquisition by the British Government of a controlling share of oil fuel properties and interests. The British Government has received in dividends 6,500,000 pounds. Beside that, it has saved on the purchase price of oil 7,500,000 pounds and by bringing down prices in other concerns it is estimated the British Government has saved 10,000,000 pounds, all resulting from its acquisition of the Anglo-Persian oil fields.

Rear Admiral Colby M. Chester

"This is a factor in the national defense of Great Britain," says Admiral Chester, "almost as large as the celebrated scoop of the Suez Canal."

These were the estimates of saving and profit by Winston Churchill. Commenting upon this statement Admiral Chester says:

British Oil Control

"Churchill has not taken into account the enormous losses of life and money in carrying out this cutthroat policy, nor the decadence in morale through engaging in a lot of secret treaties repudiated in the Council of Nations in order to carry out this project. In the face of an outraged public opinion because of the German invasion of Belgium in 1914 it was a daring deed for England to have invaded the neutral territory of Turkey before war was declared against that country, simply to gain control of the oil fields in Kurdestan which the foreign office had admitted was already mortgaged to American Nationals."

Admiral Chester then quotes British authorities to show British oil control. Sir Mackay Edgar is quoted as saying: "Two-third of the improved oil fields of Central and South America are in British hands. In Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela and Ecuador, a decisive and overwhelming majority of the petroleum concessions are held by British subjects. They will be developed by British capital." '

Sir Mackay Edgar says further: "We shall have to wait a few years before the full advantage of the situation shall begin to be reaped, but that that harvest will be a great one there can be no manner of doubt. To the tune of many millions of pounds a year, America before long will have to purchase from British companies and pay for in dollar currency, in progressively increasing proportion, the oil she cannot do without and is no longer able to furnish from her own stores. I estimate that it the present course of consumption, especially of high grade product, are maintained, America in 10 years (four of which, have already gone) will be under the necessity of importing 500,000,000 barrels of oil yearly at $2 per barrel—a very low figure—and that means an annual payment of $1,000,000,000 per annum most, if not all, of which will find its way into British pockets."

Into Other Hands

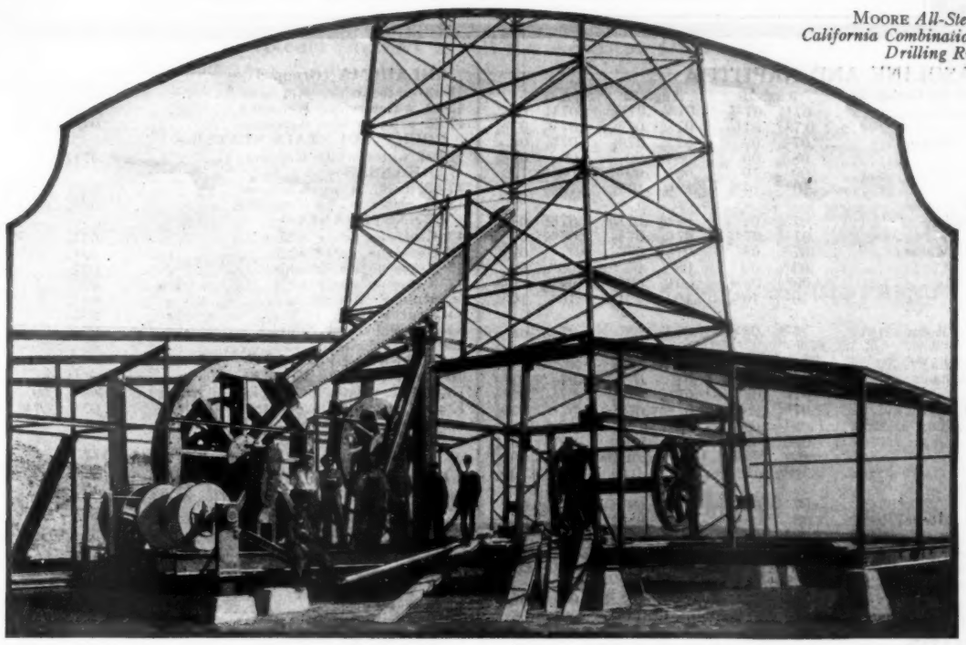
"Concluding Admiral Chester says he submits this statement to the Navy Department with the suggestion that it be referred to he United States Oil Commission for a verdict and adds:

"The oil famine predicted by our commercial rivals approaches. The company now controlling the American concession in Turkey cannot fight this huge combination of adverse interest as it has done for the past three years without the governmental aid promised it and freely accorded by the three previous administrations, much longer, and defaulting the franchise will surely go to swell still further the oil reserve of the British Navy."

This communication by Admiral Chester raises a distinct issue, whether American interests in the Turkish oil concession are such as will call forth a renewal of the policy that heretofore prevailed for the protection of these American rights or whether they are to be left a prey to be buffeted about by private financial interests without regard to any national policy for seeing that the United States Navy is guaranteed a foreign oil supply just as the British Navy today possesses an oil supply in South America, Mexico and the United States. It is a question very apt to be not only up for diplomatic discussion, which so far is proven ineffectual to accomplish any positive result, but is ilkely to form a subject for a debate in Congress, as one that is intimately associated with the national defense.

NEW LUBRICATING PLANT

The Royal Lubricating Co. of Tulsa has started operating its new lubricating plant located in that city. The plant at the present time has a tank car capacity of three cars and one car load of drums when sold in job lots. W. K. Warren of the Warren Petroleum Co., Tulsa, is head of the Royal Lubricating Co.



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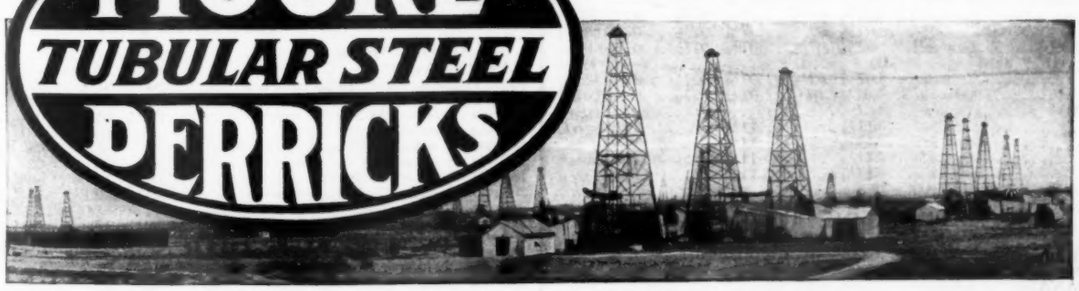
ESTABLISHED 1907

CASPER, WYO. Midwest Building
DALLAS, TEXAS Magnolia Building
TULSA, OKLA. Atlas Life Building
SHREVEPORT, LA. 824 Prospect Avenue
PARKERSBURG, W. VA. Union Trust Building

California Representatives: BUCK & STODDARD
SAN FRANCISCO—485 California Street
LOS ANGELES—3354 E. Slauson Avenue; Box 720 Arcade Station

MOORE TUBULAR STEEL DERRICKS



tinues the Admiral. "The replies approved the justice of the claim. Unfortunately, however, war broke out in there must be in Great Britain an enormous oil reserve large enough to enable us to fight for many months if necessary

carry out this project. In the face of an outraged public opinion because of the German invasion of Belgium in 1914 it

which sold in job lots. ... Tulsa, is head of the Royal Lubricating Co.

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
50-52 450 end point (Naphtha)	.07¼	.07½	.07¼	.07½	.07¼	.07½
56-58 450 end point	0.7¼	.07½	.07¼	.07⅝	.07½	.07¾
58-60 437 end point (U. S. Motor)	.07¾	.08	.07½	.07¾	.07¾	.08
60-62 400 end point	.08¾	.09	.08¾	.09	.09	.09¼
64-66 375 end point	.09½	.10	.09¼	.09¾	.09½	.10
68-70 360 end point	.10½	.10¾	.10½	.10¾	.10½	.11
OKLAHOMA (Group 3)—						
50-52 450 end point (Naphtha)	.07¼	.07½	.07¼	.07½	.07¼	.07½
56-58 450 end point	.07½	.07¾	.07¼	.07½	.07⅝	.07⅝
58-60 437 end point (U. S. Motor)	.07¾	.08	.07½	.07¾	.07⅝	.07⅞
60-62 400 end point	.08¾	.09	.08¾	.09	.08¾	.09
64-66 375 end point	.09¼	.09½	.09¼	.09½	.09¼	.09½
68-70 359-365 end point	.10¼	.10½	.10	.10½	.10¼	.10¾
KANSAS—						
58-60 437 end point (U. S. Motor)	.07¾	.08¼	.07¾	.08	.07½	.08¼
NORTH TEXAS—						
48-52 450 end point (Naphtha)	.07	.07¼	.07	.07¼	.07	.07¼
50-52 440 end point (Naphtha)	.07¼	.07½	.07	.07¼	.07	.07½
56-68 450 end point	.07½	.07¾	.07⅛	.07⅜	.07¼	.07½
58-60 437 end point (U. S. Motor)	.07¾	.08	.07⅜	.07⅝	.07½	.07¾
60-62 400 end point	.08½	.09	.08½	.09	.08¾	.09
64-66 390 end point	.08¾	.09¼	.08¾	.09	.09	.09¼
64-66 375 end point	.09	.09½	.09	.09¼	.09¼	.09½
68-70 360 end point	.10¼	.10½	.10	.10¼	.10¼	.10½
NORTH LOUISIANA—						
56-58 450 end point	.07½	.08	.07½	.08	.07¾	.08
58-60 437 end point (U. S. Motor)	.08	.08¼	.07¾	.08¼	.08	.08¼
60-62 400 end point	.09¼	.09½	.09	.09¼	.09¼	.09½
64-66 390 end point	.09½	.09¾	.09¼	.09½	.09½	.10
64-66 375 end point	.10	.10½	.09½	.09¾	.09½	.09¾
ARKANSAS—						
58-60 450 end point	.07¾	.08	.07¾	.08	.08	.08¼
58-60 437 end point (U. S. Motor)	.08	.08½	.08	.08¼	.08¼	.08½
64-66 375 end point	.09¾	.10	.09½	.09¾	.09½	.09¾
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.10¼	.10½	.10¼	.10½	.10¼	.10⅛
PENNSYLVANIA—						
52 Naphtha	.11¼		.11¼		.11½	
54 Naphtha	.11½		.11½		.11⅝	
56 Gasoline	.11⅝		.11⅝		.12	
58 Gasoline	.11¾		.11¾		.12¼	
60 Gasoline	.12½		.12½		.12¾	
62 Gasoline	.13¼		.13¼		.13½	
64 Gasoline	.14¼		.14¼		.14¼	
66 Gasoline	.15		.15		.15	
68-70 Gasoline	.16½		.16¼		.16¼	
CALIFORNIA—						
54-60 437 end point (U. S. Motor)	.11	.12	.11	.12	.11	.12

*Colorado points.

NATURAL GASOLINE

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
Grade A, 72-78, under 375 e.p., rec. 90%	.07¼	.07½	.07¼	.07½	.07¼	.07½
Grade B, 76-82, 375 end point, rec. 85%	.07¼	.07½	.07	.07¼	.07	.07¼
Grade C, 80-88, 350 end point, rec. 78%	.07¼	.07½	.06½	.07	.06½	.07¼
OKLAHOMA (Group 3)—						
Grade A, 72-78, under 375 e.p., rec. 90%	.07¾	.08	.07¼	.07½	.07¼	.07½
Grade B, 76-82, 375 end point, rec. 85%	.07½	.07¾	.07¼	.07½	.07	.07¼
Grade C, 80-88, 350 end point, rec. 78%	.07½	.07½	.07	.07¼	.06½	.06¾
Grade D, 88-92, 350 end point	.07¼	.07½	.07	.07¼	.06½	.06¾
NORTH TEXAS—						
Grade A, 72-78, under 375 e.p., rec. 90%	.07½	.08	.07¼	.07½	.07⅛	.07¾
Grade B, 76-82, 375 end point, rec. 85%	.07½	.07¾	.07	.07¼	.07	.07¼
Grade C, 80-88, 350 end point, rec 78%	.07¼	.07½	.07	.07¼	.06½	.06¾
NORTH LOUISIANA—						
Grade B, 72-78, under 375 e.p., rec. 90%	.07¾	.08	.07¼	.07½	.07	.07¼
Grade C, 76-82, 375 end point, rec. 85%	.07½	.07¾	.07¼	.07½	.07	.07¼

MOTOR NATURAL GASOLINE (BLEND)

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
58-62 437 end point	.07½	.07¾	.07¼	.07½	.07¼	.07½
60-62 450 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
64-66 450 end point	.07	.07¼	.07¼	.07½	.07¼	.07½
OKLAHOMA (Group 3)—						
60-62 450 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
64-66 437 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
68-70 430-435 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
NORTH TEXAS—						
58-62 440 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
58-60 450 end point	.07¼	.07½	.07¼	.07½	.07¼	.07½
PENNSYLVANIA—						
*60-62	.11¼		.11¼		.11½	
*64-66	.11¼		.11¼		.11½	
*66-68	.11¼		.11¼		.11½	
*68-70	.11¼		.11¼		.11½	

*At Sistersville, W. Va.

BURNING OIL

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
42-43 water white Kerosene	.04¼	.04½	.04⅜	.04⅝	.04	.04¼
42-44 water white Kerosene	.04½	.04¾	.04⅝	.04⅝	.04¼	.04½
NORTH LOUISIANA—						
41-43 prime white Kerosene	.04¼	.04½	.04¼	.04½	.04¼	.04½
42-44 water white Kerosene	.04½	.04¾	.04½	.04¾	.04½	.04¾
KANSAS—						
41-43 water white Kerosene	.04½	.04¾	.04¼	.04½	.04¼	.04½
NORTH TEXAS—						
41-43 water white Kerosene	.04⅛	.04⅜	.04	.04⅛	.04	.04⅛
41-43 prime white Kerosene	.03¾	.03⅞	.03⅝	.03⅞	.03⅝	.03¾
40-42 prime white Kerosene	.03¾	.03⅞	.03⅝	.03⅞	.03⅝	.03¾
42-44 prime white Kerosene	.04½	.04¾	.04¼	.04½	.04¼	.04½
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.04¼	.04½	.04	.04¼	.04	.04¼
42-44 water white Kerosene	.04½	.04¾	.04¼	.04½	.04¼	.04¾
41-43 prime white Kerosene	.04¼	.04½	.04	.04¼	.04	.04¼
42-44 water white Kerosene	.04⅝	.04¾	.04¼	.04½	.04¼	.04⅝
ROCKY MOUNTAIN STATES—						
*40-42 water white Kerosene	.07¼		.07¼		.07¼	
ARKANSAS—						
41-43 water white Kerosene	.04⅜	.04⅝	.04¼	.04½	.04¼	.04½
42-44 water white Kerosene	.04⅝	.04¾	.04½	.04¾	.04½	.04¾
PENNSYLVANIA—						
43 Kerosene prime white	.05⅞		.05⅞		.05⅞	
45 Kerosene water white	.06⅛		.06⅛		.06⅛	
46 Kerosene water white	.06½		.06½		.06½	
47 Kerosene water white	.07		.07		.07	
36 Miners' Neutral	.06¼		.06¼		.06¼	
34 Neutral	.06½		.06½		.06½	
34 Sundebloomed Neutral	.07½		.07½		.07½	
300 Mineral Seal	.07		.07		.07	
CALIFORNIA—						
40-42 water white (high burning test)	.07½	.08	.07½	.08	.07½	.08
Engine distillate, 43-45 445 end point	.08½	.09	.08½	.09	.08½	.09
Engine distillate, 42-44 480 end point	.07½	.07¾	.07½	.07¾	.07½	.07¾

*Colorado points.

FUEL OILS

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
24-26 Fuel Oil (sellers' cars, Group 3)	.77½	.82½	.75	.80	.75	.80
22-24 (El Dorado)	.85	.90	.80	.85	.80	.85
18-20 (Smackover)	.80	.85	.75	.80	.80	.85
32-36 Gas Oil	.02¾	.02⅞	.02⅝	.02⅞	.02⅝	.02⅞
38-40 Straw distillate	.03¼	.03½	.03	.03¼	.03	.03¼
KANSAS—						
24-26 Fuel Oil	.90	.95	.90	.95	.90	.95
32-36 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.03
38-40 Distillate	.03½	.03⅝	.03½	.03⅝	.03½	.03⅝
OKLAHOMA (Group 3)—						
22-26 Fuel Oil (sellers) cars)	.75	.80	.72½	.75	.72½	.75
24-26 Fuel Oil (buyers' cars)	.75	.80	.72½	.75	.70	.75
24-26 Fuel Oil (sellers cars)	.80	.85	.75	.80	.72½	.77½
28-30 Fuel Oil (sellers' cars)	.90	.95	.85	.90	.85	.90
32-36 Gas Oil	.02⅝	.02¾	.02⅝	.02⅞	.02⅝	.02⅞
38-40 Straw distillate	.03¼	.03½	.03¼	.03½	.03¼	.03⅝
NORTH TEXAS—						
24-26 Fuel Oil	.72½	.77½	.72½	.77½	.72½	.77½
26-30 Fuel Oil	.80	.85	.80	.85	.80	.85
32-36 Gas Oil	.02⅝	.02¾	.02⅝	.02¾	.02⅝	.02⅞
36-38 Gas Oil	.02⅞	.03⅛	.02⅞	.03	.02⅞	.03
38-40 Straw distillate	.03¼	.03½	.03⅛	.03¼	.03⅛	.03¼
NORTH LOUISIANA—						
20-22 Fuel Oil	.85	.90	.85	.90	.85	.90
32-36 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.03
36-40 Light Straw distillate	.03	.03¼	.03	.03¼	.03	.03¼
ARKANSAS—						
38-40 Distillate	.03¼	.03½	.03⅛	.03¼	.03⅛	.03¼
32-36 Gas Oil	.03	.03¼	.03	.03¼	.03	.03¼
22-26 Refinery Fuel Oil	.80	.85	.80	.85	.80	.85
GULF COAST (South Texas)—						
Gas Oil	.03½	.04	.04	.04¼	.04	.04¼
Fuel Oil	1.30	1.40	1.45	1.50	1.40	1.45
PENNSYLVANIA—						
30-34 Fuel Oil	.05		.05		.05	
36-40 Fuel Oil	.05¼		.05¼		.05¼	
CALIFORNIA—						
33-36 Distillate	.03¾	.04¼	.03¾	.04¼	.03¾	.04¼
27-33 Distillate	.03½	.03¾	.03½	.03¾	.03½	.03¾
15-20 Fuel Oil (at Tide Water)	1.40		1.40		1.40	

ROAD OILS

CHICAGO DIST. (Based on Group 3)—	Aug. 19		Aug. 12		Aug. 5	
50-60 Asphaltic Content	.95	1.00	.95	1.00	.95	.100
60-70 Asphaltic Content	1.00	1.05	1.00	1.05	1.00	1.05
OKLAHOMA (Group 3)—						
40-45 Asphaltic Content	.90	.95	.90	.95	.90	.95
50-60 Asphaltic Content	.95	1.00	.95	1.00	.95	1.00
60-70 Asphaltic Content	1.00	1.05	1.00	1.05	1.00	1.05

NEUTRAL OILS

OKLAHOMA (Group 3)— Pale Neutrals:	Aug. 19		Aug. 12		Aug. 5	
70-80 vis., 8½ color, 20-25 cold test	.04	.04½	.04	.04½	.04	.04½
100 vis., 2 color, 20-25 cold test	.05	.05½	.05	.05½	.05	.05½
100 vis., 3 color, 20-25 cold test	.04½	.05	.04½	.05	.04½	.05
150 vis., 3 color, 20-25 cold test	.08	.09	.08½	.09	.08½	.09
150 vis., 4 color, 20-25 cold test	.08	.08½	.08	.08½	.08	.08½
180 vis., 4 color, 23-28 cold test	.09	.09½	.09	.09½	.09	.09½
180 vis., 3 color, 23-28 cold test	.09½	.10	.09½	.10	.09½	.10
200 vis., 3 color, 23-28 cold test	.11½	.12	.11½	.12	.11½	.12
200 vis., 4 color, 23-28 cold test	.11	.11½	.11	.11½	.11	.11½
220 vis., 3 color, 25-30 cold test	.12½	.13	.12½	.13	.12½	.13
220 vis., 4 color, 25-30 cold test	.11¾	.12¼	.11¾	.12¼	.11¾	.12¼
240 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
240 vis., 4 color, 25-30 cold test	.14	.14½	.14	.14½	.14	.14½
280 vis., 3 color, 25-30 cold test	.16½	.17	.16½	.17	.16½	.17
280 vis., 4 color, 25-30 cold test	.15½	.16	.15½	.16	.16½	.16
Red Neutrals:						
180 vis., 5 color, 23-28 cold test	.08½	.09	.08½	.09	.08½	.09
180 vis., 6 color, 23-28 cold test	.12¼	.12¾	.12¼	.12¾	.12¼	.12¾
200 vis., 5 color, 23-28 cold test	.10½	.11	.10½	.11	.10½	.11
200 vis., 6 color, 23-28 cold test	.13	.13½	.13	.13½	.13	.13½
220 vis., 5 color, 25-30 cold test	.11	.11½	.11	.11½	.11	.11½
220 vis., 6 color, 25-30 cold test	.14¼	.14¾	.14¼	.14¾	.14¼	.14¾
240 vis., 5 color, 25-30 cold test	.13	.13½	.13	.13½	.13	.13½
240 vis., 6 color, 25-30 cold test	.15¼	.15¾	.15¼	.15¾	.15¼	.15¾

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

280 vis., 5 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
180-200 vis., S. R. green, 40-45 cold test	.07	.07½	.07	.07½	.07½	.08
190-200 dark green, 40-45 cold test	.06	.06½	.06	.06½	.07½	.08
170-190 dark green, 40-45 cold test	.05¾	.06	.05¾	.06	.06	.06¼
600 E. filtered	.20	.21	.20	.21	.20	.21
590-600 Bright Stock, 150-160 vis.	.28	.29	.28	.29	.28	.29
600-610 Bright Stock, 190-210 vis.	.32	.34	.32	.34	.32	.34
Waxes:						
124-126 White Crude Scale Wax	.04¼	.04½	.04	.04⅛	.04	.04⅛
PENNSYLVANIA—						
150, 3 color	.20		.20		.20	
180, 3 color	.20¾		.20¾		.20¾	
200, 3 color	.22¼		.22¼		.22¼	
220, 3 color	.26¾		.26¾		.26¾	
600, steam refined	.17		.17		.17	
635, steam refined	.20½		.20½		.20½	
650, steam refined	.22¼		.22¼		.22¼	
600, Pennsylvania flash	.25		.25		.25	
630, Pennsylvania flash	.32		.32		.32	
*550, E filtered	.19		.19		.19	
*600 E filtered	.20¼		.20½		.20½	
600, E filtered	.21		.21		.21	
600, D filtered	.27		.27		.27	
550, E filtered	.20		.20		.20	
550, D filtered	.24		.24		.24	
Pennsylvania Bright Stock	.35		.35		.35	
†122-124 White Crude Scale Wax	.05⅛		.04¾		.04¾	
*122-124 White Crude Scale Wax	.05¼		.04¼		.04¼	

*At Warren, Penn. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.05	.06	.06	.07	.06	.07
No. 2 color, 100 vis., pale oil	.06	.07	.07	.08	.07	.08
No. 2 color, 150 vis., pale oil	.09	.10	.10	.11	.10	.11
No. 3 color, 200 vis., pale oil	.11	.12	.12	.13	.12	.13
No. 3 color, 300 vis., pale oil	.14	.15	.15	.16	.15	.16
No. 3½ color, 500 vis., pale oil	.15½	.16½	.16½	.17½	.16½	.17½
No. 3½ color, 750 vis., pale oil	.21½	.22½	.22½	.23½	.22½	.23½
No. 4½ color, 1200 vis., pale oil	.23½	.24½	.24½	.25½	.24½	.25½
No. 4½ color, 2000 vis., pale oil	.26	.27	.27	.28	.27	.28
No. 1½ color, 150 vis., pale filtered	.19	.20	.20	.21	.20	.21
No. 2 color, 200 vis., pale filtered	.21	.22	.22	.23	.22	.23
No. 3 color, 300 vis., pale filtered	.24½	.25½	.25½	.26½	.25½	.26½
No. 3½ color, 500 vis., pale filtered	.29½	.30½	.30½	.31½	.30½	.31½
No. 3½ color, 750 vis., filtered	.38½	.39½	.39½	.40½	.39½	.40½
No. 5 to 6 color, 200 vis., red oil	.09	.10	.10	.11	.10	.11
No. 5 to 6 color, 300 vis., red oil	.11½	.12½	.12½	.13½	.12½	.13½
No. 5 to 6 color, 500 vis., red oil	.14	.15	.15	.16	.15	.16
No. 5 to 6 color, 750 vis., red oil	.18	.19	.19	.20	.19	.20
CALIFORNIA—						
200 vis., 2½-3 color	.15	.17	.15	.17	.15	.17
300 vis., 2 -4 color	.16	.19	.16	.19	.16	.19
350 vis., 3½-4 color	.17½	.20	.17½	.20	.17½	.20
400 vis., 4 -4½ color	.19	.20	.19	.20	.19	.20
Red Neutrals:						
200 vis., 4½-5 color	.13	.14	.13	.14	.13	.14
300 vis., 5 -6 color	.14	.17	.14	.17	.14	.17
400 vis., 5 -6 color	.16	.18	.16	.18	.16	.18
500 vis., 6 -6½ color	.17	.18	.17	.18	.17	.18
600 vis., 6½ plus	.18	.21	.18	.21	.18	.21

NEW YORK DOMESTIC MARKET

Motor Gasoline:	Aug. 19	Aug. 12	Aug. 5
Spot Gasoline, Bayonne	.10¾	.10¾	.10¾
V. M. P. Naphtha, in steel barrels	.18	.18	.18
Lubricating Oil (Industrial) at refinery, Bayonne, N. J.:			
Cylinder, extra light filtered, in barrels	.44½	.44½	.44½
Cylinder, light filtered, in barrels	.38	.38	.38
Cylinder, Bright Stock	.48½	.48½	.48½
Cylinder, steam refined (600)	.30½	.30½	.30½
Black, in bulk	.12	.12	.12
Bloomless, white, 30-31 gravity, 170 vis.	.44	.44	.44
Bloomless, 885 specific gravity	.16½	.16½	.16½
Red Paraffin:			
170 viscosity	.22	.22	.22
212 viscosity	.23	.23	.23
265 viscosity	.24	.24	.24
295 viscosity	.26	.26	.26
Paraffin, 903 specific gravity	.31	.31	.31
*Fuel Oil:			
Bunker Oil, 14 plus: July 15, $1.75; 16, 1.75; 17, 1.75; 18, 1.75; 19, 1.75; 21, 1.75; 22, 1.75; 23, 1.75; 24, 1.75; 25, 1.75; 26, 1.75; 28, 1.75; 29, 1.75; 30, 1.75; 31, 1.75; August 1, 1.75; 2, 1.75; 3, 1.75; 4, 1.75; 5, 1.75; 6, 1.75; 7, 1.75; 8, 1.75; 9, 1.75; 10, 1.75; 11, 1.75; 12, 1.75; 13, 1.75; 14, 1.75; 15, 1.75; 16, 1.75.			
Diesel Oil, at refinery, gallon	.05	.05	.05
Furnace Oil, tank wagon, gallon	.10	.10	.10
Gas Oil, delivered in New York	.06	.06	.06
Wax, fully refined:			
120-122 a.m.p.	.05¼	.05⅛	.05⅛
125-127 a.m.p.	.05¾	.05¾	.05½
130-132 a.m.p.	.06¾	.06¾	.07
135-137 a.m.p.	.08	.08	.08½

*Lighterage, 6.5c a barrel extra.

NEW YORK EXPORT PRICES

	Aug. 19	Aug. 12	Aug. 5
Motor Gasoline, in cases, gallon	.26.14	.26.14	.26.14
Motor Gasoline, U. S. Navy, spec. gallon	.12.25	.12.25	.12.25
Naphtha, 60° F., 59-61 spec. grav.	.13.25	.13.25	.13.25
Naphtha, 60° F., 63-66 spec. grav.	.14.5	.14.5	.14.5
Naphtha, 60° F., 66-68 spec. grav.	.16.0	.16.0	16.0
Kerosene:			
Standard white, in bulk	.06½	.06½	.06½
Standard white, in barrels, gallon	.13½	.13½	.13½
Standard white, in cases, gallon	.16.9	.16.9	.16.9
Water white, in cases, gallon	.07½	.07½	.07½
Water white, in barrels, gallon	.14½	.14½	.14½
Water white, in cases, gallon	.17.9	.17.9	.17.9

LOS ANGELES EXPORT PRICES

Kerosene:	Aug. 19		Aug. 12		Aug. 5	
Water white	.04	.04½	.04	.04½	.04	.04½

CRUDE OIL PRICES

July 26.—Magnolia Petroleum Co. reduced Luling crude 10 cents. Owens Refining Co. reduced Rockdale-Minerva crudes 25 cents.

July 28.—Grayburg Oil Co. established four-gravity basis for Somerset, Texas, crudes with lower prices.

August 2.—Indian Refining Co. and Paragon Development Co. reduced western Kentucky crudes 5 cents. Corning crudes reduced 15 cents.

August 5.—Paragon Development Co. reduced Cumberland and Monroe County crudes 15 cents.

August 5.—Joseph Seep Purchasing Agency reduced all grades Pennsylvania crude 25 cents; Cabell, Somerset medium and Somerset light were reduced 15 cents; Ragland was reduced 10 cents.

August 8.—Paragon Development Co. and Indian Refining Co. reduced Western Kentucky crudes 10 cents.

August 9.—Major purchasing companies reduced Gulf Coast crudes 15 cents. Humble Oil & Refining Co. reduced Mexia, Powell, Currie and Archer and Wichita County crudes 15 cents. The Texas Co. met Humble prices in Mexia and Currie.

Arkansas and North Louisiana

Caddo, 38° and above	$1.35
35° to 37.9°	1.25
32 °to 34.9°	1.15
Below 32°	1.00
Homer, 35° and above	1.35
33° to 34.9°	1.25
31° to 32.9°	1.15
Below 31°	1.00
Haynesville, 33° and above	1.25
Below 33°	1.15
El Dorado, 33° and above	1.35
Below 33°	1.25
Bull Bayou, 38° and above	1.30
35° to 37.9°	1.15
32° to 34.9°	1.00
Cotton Valley	.80
De Soto	1.35
Crichton	1.15
Bellevue	1.25
Smackover, 26° and above	.95
25° to 25.9°	.80
24° to 24.9°	.70
Below 24°	.60
*Stephens, Ark.:	
Below 23°	.85
23° to 25.9°	1.05
26° to 27.9°	1.20
28° to 31°	1.25

*Posted by Atlantic Oil Producing Co.

Wyoming and Montana

Rock Creek, (Wyo.)	1.20
Salt Creek	1.10
Big Muddy	1.00
Mule Creek	.60
Grass Creek (light)	1.45
Elk Basin	1.45
Lance Creek	1.40
Osage	1.40
Cat Creek (Mont.)	1.45
Sunburst (Mont.)	.90
Lost Soldier	.78
Greybull & Torchlight	1.40
Hamilton Dome	1.05

Lander based on contracts covering entire production of fields.

Oklahoma, Kansas, North and Central Texas

Prairie Oil & Gas Co. and other major purchasing companies, except as noted:

Below 30°	$1.10
30° to 32.9°	1.25
33° and above	1.50
Magnolia Petroleum Co.:	
Below 28°	.90
28° to 30.9°	1.00
31° to 32.9°	1.10
33° and above	1.25
Corsicana Light	1.25
Corsicana Heavy	.90
Mexia	1.25
Powell	1.25
Thrall	1.00

Humble Oil & Refining Co.

Below 30°	$1.00
30° to 32.9°	1.20
33° to 35.9°	1.40
36° and above	1.39
Wichita and Archer Counties	1.35
Mexia	1.35
Powell	1.35
Currie	1.35

Gulf Coast

Grade "A"	$1.85
Grade "B"	1.15
Luling	.90
Laredo (Magnolia Petroleum Co.)	.75
Rockdale-Minerva (Milam County)	1.05
Calliham (Live Oak-McMullen)	1.53

***Somerset**

Under 28° gravity	.90
28° to 30.9°	1.00
31° to 32.9°	1.10
33° and above	1.25

*Posted by Grayburg Oil Co.

California

14° to 14.9°	$1.00
20° to 20.9°	1.01
21° to 21.9°	1.02
22° to 22.9°	1.03
23° to 23.9°	1.06
24° to 24.9°	1.07
25° to 25.9°	1.10
26° to 26.9°	1.13
27° to 27.9°	1.16
28° to 28.9°	1.19
29° to 29.9°	1.22
30° to 30.9°	1.25
31° to 31.9°	1.28
32° to 32.9°	1.31
33° to 33.9°	1.34
34° to 34.9°	1.37
35° gravity and above	1.40

Eastern States

Penna Grade Oil in New York Transit Lines	$3.00
Bradford District Oil in National Transit Lines	3.00
Penna Grade Oil in National Transit Lines	2.75
Penna Grade Oil in Southwest Pa. Pipe Line Lines	2.75
Penna Grade Oil in Eureka Pipe Line Lines	2.75
Penna Grade Oil in Buckeye Pipe Line Lines	2.75
Cabell Grade Oil in Eureka Pipe Line Lines	1.45
Corning Grade Oil in Buckeye Pipe Line Lines	1.75
Somerset Medium Oil in Cumberland Pipe Line Lines	1.55
Somerset Light Oil in Cumberland Pipe Line Lines	1.70
Ragland Grade Oil in Cumberland Pipe Line Lines	.90
Lima	1.83
Wooster	1.65
Illinois	1.62
Indiana	1.63
Princeton	1.62
Plymouth	1.00
Waterloo	1.10
†Oil Springs, Canada	2.30
†Petrolia, Canada	2.23
*Western Kentucky, 36° and above	1.40
*Western Kentucky, 33° to 35.9°	1.30
*Western Kentucky, 32.9° and below	1.20
Cumberland and Monroe Counties, (Ky.) (Paragon Dev. Co.)	1.90

†Plus Government bounty of 26¼c.

*Prices for Warren, Allen, Hancock, and Ohio Counties by Indiana Refining Co. Prices for Warren and Simpson Counties by Paragon Development Co.

Mexican Crude

*Tuxpam (f.o.b. Mexican ports)	$1.40
†Panuco (f.o.b. Mexican ports)	1.15
Tuxpam (New York)	1.97
Panuco (New York)	1.57

*Plus 31.92c tax. †Plus 17.40c tax. Prices based on contracts.

Refiners Protest Shipping Section

Contend There Are Not Adequate American Bottoms and Law Would Unjustly Impose Higher Freight Rates on Exports

Fayette B. Dow, consel for the Western Petroleum Refiners Association, in connection with the issues arising under Section 28 of the Merchant Marine Act, has filed with the Congressional Committee on Coordination of Rail and Water Facilities appointed by President Coolidge, considerable data having to do with the position of the Mid-Continent refining industry in the proposed action of the United States Shipping Board which now desires to make effective Section 28 about January 1, 1925.

This is the first formal presentation of the claims of the Western Petroleum Refiners Association which has been joined in this action by the National Petroleum Association, an eastern refinery organization. Other information will be presented by counsel representing the two refinery associations before the final hearing is held and recommendation made for Congressional action when Congress again convenes.

The action as another step of the Mid-Continent refiners' fight to prevent the enforcement of Section 28, provided for in the Jones Shipping Act of 1920. Briefly, this section sought to protect American shipping facilities by giving certain preferential freight rates in export movement to companies who shipped in American bottoms. The enforcement of the section depends on the certification of the Shipping Board to the Interstate Commerce Commission that there are enough American bottoms to handle the petroleum shipments. There has been considerable contention as to the section, but it has never been enforced up to the present. In April of this year, the Shipping Board gave notice of adequate bottoms and the Interstate Commerce Commission set May 20 as the date on which the section was to become effective.

To Avert Enforcement

Due largely to the activity of the Mid-Continent refiners through the Western Petroleum Refiners Association, a postponement of this action was secured and the Shipping Board, it is understood, does not expect to secure its enforcement until the first of next year. In the meanwhile, refiners are endeavoring to prevent its enforcement by securing a repeal of Section 28 through Congressional action, or similar relief.

A bill providing for this action was presented in the last session of Congress but it failed of final passage. However, provision was made for the Committee of Rail and Water Facilities which is now conducting an investigation and whose findings will presumably determine what final action, if any, will be taken by Congress.

The main contention of the inland refiners interested in the matter, is that there are not adequate American bottoms available to independent export shippers of petroleum products. Due to this fact they contend they will be forced to ship at the regular domestic rail rates rather than the preferential export rate, if the section is made effective. There is a difference of almost 50 per cent in some cases between the domestic and export rates from points in the Mid-Continent territory. The refiners contend that such a difference would practically force them out of the export market which they have been accustomed to rely upon as a source of outlet for a part of their plant output.

The information filed by Mr. Dow last week covers several situations in their relationship to Section 28. Detailed data are furnished, based on the Bureau of Mines and other reports, showing the operations of Mid-Continent refineries and their shipments. It shows domestic and export rates from several refiners and also gives a list of all the 340 American ships of 500 tons or more. A list of exporters will be found at the end of this article.

Mr. Dow's Argument

Mr. Dow, in outlining the position of the inland refiners says in part:

1. "The Western Petroleum Refiners Association, in whose behalf this letter is written, is composed of about 66 companies engaged in the business of refining and selling petroleum and its products, located chiefly in Kansas, Oklahoma and North Texas. There are other refineries of the Mid-Continent Field which are not members of the Association, such as those located in Arkansas and Louisiana, which are similarly situated so far as Section 28 is concerned. A recent survey showed that 132 inland refineries, having a daily capacity of 525,515 bbls. were in operation in those five States on February 1, 1924.

2. "Since its establishment the Mid-Continent refining industry has depended upon the export market for a very substantial part of its sales. The domestic demand for petroleum products in the States where those refineries are located and in the territory which can be reached under domestic rail rates is wholly insufficient to take their output. Many of these refineries have been equipped for the purpose of manufacturing special grades of oil required in the export trade They are producing oils for which there is little or no market in the United States. The total exports in 1923 from inland plants, moving under export rates to the Gulf ports, based upon a careful survey recently made, were between 600,000 and 700,000 tons. Efforts are being made to increase the volume of exports from these refineries and, based upon a continuation of the applicability of export rates without restriction, it may be estimated that a substantially larger tonnage will be exported.

3. "A list of American tankers has been made a part of these papers. Of these a considerable number are engaged in the transportation of molasses and liquids other than petroleum. Of those which are used in petroleum service all but 48 are owned and operated by the large petroleum refineries which are located on the Atlantic, Gulf and Pacific Coasts. These tankers, which are owned by the large coast refining companies, are used in the service by those companies. They are not operated by common carrier companies and are not available to the inland Mid-Continent refiners.

"The Shipping Board owns 48 tankers. Not one of these tankers is in service between any American and any foreign port.

Use of Tankers

"The present disposition of these 48 tankers, according to information recently received from the Emergency Fleet Corporation is as follows: 7 are concrete and may be eliminated from consideration; 12 are in use by the Shipping Board for the storage of fuel oil on the Atlantic and Gulf Coasts; 6 are in Pacific Coast fuel oil service; 5 are allocated to certain coast refineries for the transportation of fuel oil for the Shipping Board; 13 are out of commission; 4 are 'dirty,' (i.e. used for crude or fuel oils, not fit for gasoline or kerosene unless cleaned) and under charter in coastwise service; 1 is 'clean,' and available for charter. It is understood that this tanker is about to be sold by the Shipping Board.

4. "A comparison of export and domestic rail rates in cents per 100 pounds from representative refining points to Gulf ports has been shown in Statement No. 7, hereto attached. The following are illustrative, the rate first stated being for export, the second domestic: From El Dorado, Ark., 16½c, 25c; from Coffeyville, Kans., 22c, 48½c; from Kansas City, Kans., 28c, 54c; from Tulsa, Okla., 22c, 45½c; from Wichita Falls, Texas, 20½c, 33½c; from San Antonio, Texas, 19, 29½c.

"This means that even under present export rates the inland refiners must absorb from 1 to 2 cents per gallon transportation costs in their competition with the coast refiners for export sales. If the domestic rates should become applicable to export shipments they would be compelled to absorb from 2 to 3½ cents per gallon. This they could not possibly do. Sales will turn from one seller to another for ½-cent per gallon, which amounts to $2,000 on a cargo of 8,000 tons.

"The inland refiners cannot, in general, compete for domestic business at the Gulf Coast points, with the refineries located on the coast. Therefore, the domestic rates are not in fact used by the inland refiners on domestic business. They are too high to be used on either domestic or export business and their application to export business would shut off that business completely. No one doubts that statements who understands the export business.

"With reference to the application of demurrage rules on domestic as compared with export shipments, if the domestic rates should be applied, only 48 hours' free time would be allowed, and if for any cause the cars were not unloaded within the 48 hours, demurrage the first four days would be at the rate of $2 per day and $5 per day for each succeeding 24 hours thereafter. The same rates of demurrage would apply on export shipments after seven (7) days free time.

Situation Different

5. "The situation here presented differs from that of all other American exports. This is clear when the following facts are considered:

"(a) The large Coast refineries are not dependent upon common carrier companies transporting by water but own their own vessels. The inland Mid-Continent refiners do not own their own vessels.

"(b) The Coast refiners are so located that they can use their own tankers, or they can sell to foreign buyers without penalty. Section 28 does not affect them, except by eliminating the competition of inland plants. Section 28, therefore, would not compel the Coast refineries to use American tankers. It would simply transfer to them the present export business of the inland plants for shipment either in an American or foreign tanker.

"(c) The Coast refineries receive their raw material, crude oil, by pipe line. Speaking generally, they do not use the railroads on any part of their export business. The inland refiner frequently receives his crude oil in tank cars and his exports must move by railroad to the Coast. Therefore, Section 28, in eliminating export shipments from inland plants, would take away a very substantial traffic from the railroads without giving any assurance of increasing the tonnage which moves in American tankers.

"(d) The Shipping Board does not offer any sailings or service from any United States port for petroleum in bulk to any foreign country, nor is such service offered by any common carrier company. The petroleum export situation, therefore, differs from that of all other classes of traffic. Furthermore, Section 28 does not contemplate that an American exporter shall be compelled to charter an American vessel and go into the transportation business in order to export his products.

6. "A large proportion of petroleum exports from the United States has always been transported in American privately-owned vessels. We had an American tanker marine before the war and neither a Government-owned fleet of tankers nor special legislation of the character of Section 28 was needed to put the American flag on the seas for petroleum service. For that reason, Section 28 would not be needed to encourage the use of American tankers, even if it could have that effect.

7. "In 1920, when the Shipping Board certified that shipping facilities were inadequate, it owned 95 tankers. It now owns 48, the remainder having been sold, and quite properly, to Coast refining companies. Even if the Shipping Board were to offer a few of its tankers for charter this would not relieve the situation of the inland refineries for, under Section 28, they would lose all chance of selling to foreign buyers who use their own tankers, a business which the Coast refineries would enjoy without penalty.

8. "The enforcement of Section 28, in so far as it relates to petroleum in bulk, would result in an unjust discrimination against the interior refineries to the advantage of the larger companies located at tidewater. It would not necessarily result in the use of a single additional American tanker and therefore as to such vessels it would not contribute to the building up or support of the American Merchant Marine. I enclose herewith a list of the members of the Western Petroleum Refiners Association. To the best of my knowledge, only one of these companies is owned or controlled by foreign interests. It would be difficult to assemble a more typical American group of companies than these. Their attitude in this matter has been recently endorsed by the National Petroleum Association. These two association embrace the greater number of independent refining companies of the United States.

"Most of their members in 1923 and thus far in 1924 have operated at a loss To eliminate the export markets of the Mid-Continent refiners would bring to them nothing less than disaster."

W. H. Reed's Analysis

W. H. Reed, of the Sinclair Refining Co., widely known as an authority in traffic matters, in reference to the importance of Section 28, the inland refiners said in part:

"Most of the Independent buyers in the United Kingdom and Continental Europe, have small storage capacity on shore in which to receive the cargo, and at no time will a buyer purchase more oil than he can take delivery of, no matter how favorable market conditions may be. As a consequence, if the buyer can only unload 5,000 tons of gasoline it is foolish and a waste of time to try to sell him 6,000 or 7,000 tons, even though there may be 6,000 or 7,000-ton ships available, and a great scarcity of 5,000 tons. The size of the ship must fit the cargo, as the exporter cannot make the cargo fit the ship, and if there is no American ship available, clean and suitable, he must, through his broker find a ship of any flag to transport the goods, otherwise he cannot consummate the sale.

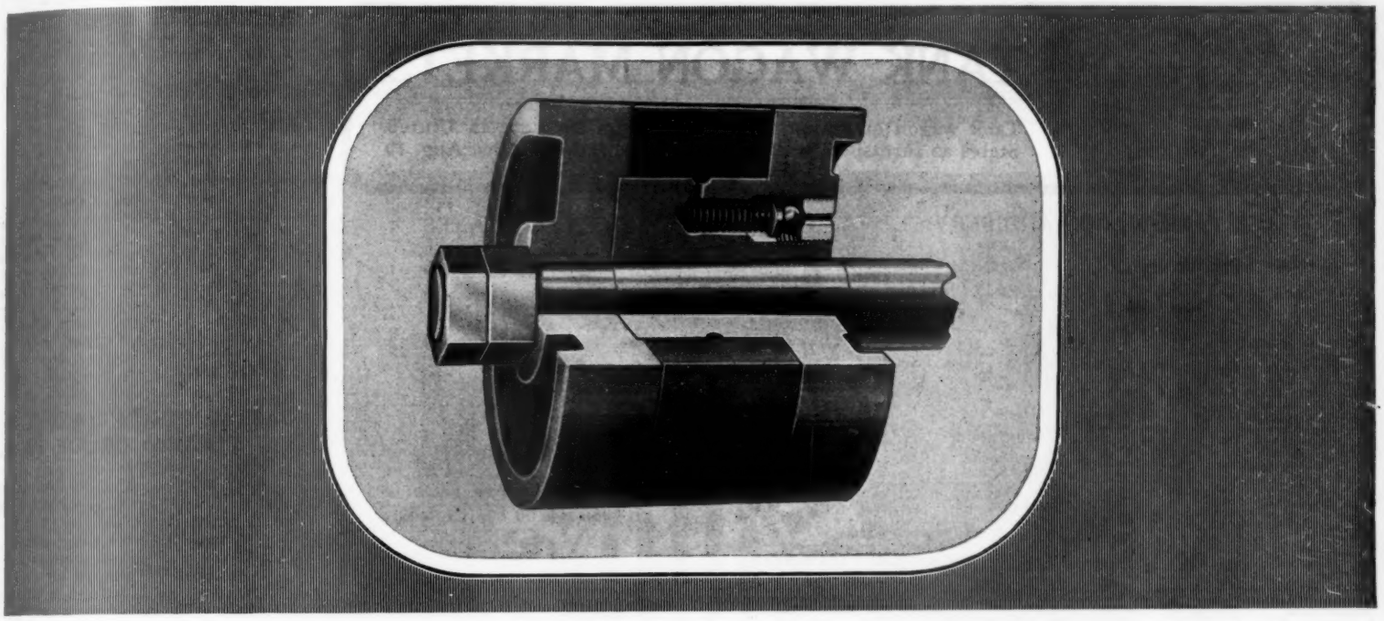
"When a foreign buyer negotiates for a cargo of lubricating oil, it is generally for three to five grades, which is the customary way of making the purchase. The seller must have in hand a suitable ship to transport same, that is a ship with three to five compartments, equipped with pumps and discharge lines, so that no part of the cargo will become contaminated, as any mixture of pale and red oils, or light and heavy grades of specific

(Continued on Page 70)

Kerosene:			
Standard white, in bulk	.06½	.06½	.06½

Mexia	1.25
Powell	1.25
Panuco (New York)	1.57

*Plus 31.92c tax. †Plus 17.40c tax.
Prices based on contracts.



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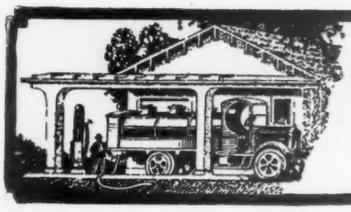


TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, Aug. 19

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

Main Service Station Price

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Chicago District—				
†100 gals. or more	14.25	...	18.0	11.0

Tank wagon prices on April 10, 1922; g. up 1½c; May 8, g. up 1c; June 27, both up 1c; July 19, g. down 2c, k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug. 14, g. down 6.6c; Oct. 4, k. down 1½c; Nov. 10, g. down 1.4c; Dec. 29, g. up 2c; Jan. 12, 1924, g. up 2c, k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c.

Decatur, Ill.	16.2	...	18.2	11.5
East St. Louis	15.1	...	17.35	10.6
Joliet	16.4	...	18.4	11.7
Peoria	16.2	...	18.2	11.5
Quincy	16.2	...	18.2	11.3
Davenport, Ia.	15.5	...	18.5	11.9
Des Moines	14.5	...	16.5	11.9
Keokuk	16.5	...	18.5	11.9
Sioux City	14.0	...	18.0	11.5
Duluth, Minn.	17.2	...	19.2	12.6
Minneapolis	12.0	...	16.0	12.6
La Crosse, Wis.	17.2	...	19.2	12.4
Milwaukee	15.0	...	18.0	11.3
Madison	16.3	...	18.3	11.5
Detroit, Mich.	16.8	...	18.8	12.2
Grand Rapids	16.7	...	18.7	12.1
Saginaw	16.9	...	18.9	12.3
Evansville, Ind.	18.0	2.0	20.0	11.5
Fort Wayne	18.4	2.0	20.4	11.9
Indianapolis	18.2	2.0	20.2	11.7
South Bend	18.4	2.0	20.4	11.9
Fargo, N. D.	18.6	1.0	20.6	14.6
Huron, S. D.	18.0	2.0	20.0	13.1
Sioux Falls	18.0	2.0	20.0	12.6
*Kansas City, Mo.	12.9	1.0	16.9	10.3
Springfield	16.8	...	18.8	11.2
*St. Louis	14.6	0.5	17.9	11.0
*St. Joseph	16.0	0.5	18.0	10.9
Wichita, Kans.	15.3	...	17.8	10.8
Bartlesville, Okla.	16.5	2.5	19.0	9.9

*City tax.
†Tank wagon price on less than 100 gallons, 16c.

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Newark, N. J.	17.5	...	....	13.0
Atlantic City	17.5	...	....	13.0
Annapolis, Md.	19.0	2.0	21.0	12.5
Baltimore	19.0	2.0	21.0	12.5
Cumberland	19.0	20.	21.0	12.5
Washington, D. C.	19.0	2.0	21.0	12.5
Norfolk, Va.	20.5	3.0	22.5	13.5
Petersburg	20.5	3.0	22.5	13.5
Danville	20.5	3.0	22.5	13.5
Richmond	20.5	3.0	22.5	13.5
Roanoke	20.5	3.0	22.5	13.5
Keyser, W. Va.	19.0	2.0	....	13.5
Charleston	19.0	2.0	....	13.5
Parkersburg	19.0	2.0	....	13.5
Wheeling	19.0	2.0	....	13.5
Charlotte, N. C.	20.0	3.0	....	13.5
Hickory	20.0	3.0	....	13.5
Mt. Airy	20.0	3.0	....	13.5
Salisbury	20.0	3.0	....	13.5
Charleston, S. C.	20.5	3.0	....	14.0
Columbia	20.5	3.0	....	14.0

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Atlanta, Ga.	19.0	3.0	23.0	13.0
Augusta	21.0	3.0	23.0	13.5
Macon	21.0	3.0	23.0	14.5
Savannah	18.0	3.0	20.0	13.0
Birmingham, Ala.	19.0	2.0	21.0	14.5
Mobile	18.0	2.0	20.0	12.5
*Montgomery	20.0	3.0	22.0	15.5
Clarksdale, Miss	18.0	3.0	21.0	12.0
Jackson	18.0	3.0	21.0	10.0
Natchez	17.5	3.0	20.5	11.5
Vicksburg	17.5	3.0	20.5	11.5
Jacksonville, Fla	19.0	3.0	21.0	13.0
Miami	21.0	3.0	23.0	14.5
Pensacola	19.0	3.0	21.0	13.5
Tampa	19.0	3.0	21.0	13.0
Lexington, Ky.	17.0	3.0	20.0	14.0
Covington	16.0	3.0	19.0	14.0
Louisville	16.0	3.0	18.0	12.0

*In addition to State tax of 2 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and ½ cent on kerosene.

PACIFIC COAST DISTRICT

Stadard Oil Co. (California)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
San Francisco	17.0	2.0	20.0	15.5
Los Angeles	16.0	2.0	19.0	15.5
Fresno	17.5	2.0	20.5	17.5
Reno, Nev.	20.5	3.0	23.5	19.0
Portland, Ore.	19.0	3.0	22.0	16.5
Seattle, Wash.	18.0	3.0	21.0	16.5
Tacoma	18.0	3.0	21.0	16.5
Spokane	22.0	3.0	25.0	20.5
Phoenix, Ariz.	23.0	3.0	26.0	21.5

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Salt Lake, Utah	22.0	2.0	24.0	17.0
Ogden	22.0	2.5	24.0	17.0
Albany, N. Y.	17.0	...	21.5	13.0
*New York	19.0	...	22.0	13.0
Buffalo	15.5	...	18.5	13.0
Rochester	15.0	...	19.0	13.0
Syracuse	16.0	...	21.0	11.0
Boston, Mass.	17.0	...	20.0	13.0
Providence, R. I.	18.0	...	22.5	13.0
Augusta, Me.	19.0	1.0	21.5	13.0
Manchester, N. H.	19.0	2.0	21.5	13.0
Burlington, Vt.	19.0	1.0	21.5	13.0

*Price in steel barrels.

ROCKY MOUNTAIN DISTRICT

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Basin, Wyo.	19.0	1.0	....	14.0
Casper	19.0	1.0	19.0	12.0
Cheyenne	18.5	1.0	20.5	13.5
Cody	20.0	1.0	....	15.0
Lander	19.0	1.0	....	14.0
Albuquerque, N. M.	20.0	1.0	22.0	16.5
Denver, Colo.	18.0	2.0	20.0	13.5
Glenwood Spgs.	22.0	2.0	....	17.5
Pueblo	18.0	2.0	20.0	14.5
Billings, Mont.	20.5	2.0	22.5	14.5
Butte	22.0	2.0	24.0	15.0
Great Falls	22.0	2.0	24.0	15.0
Helena	22.0	2.0	24.0	15.0
Miles City	21.5	2.0	23.5	15.5
Boise, Idaho	23.5	2.0	26.5	19.0

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND

Atlantic Refining Co.

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
*Pittsburgh, Pa.	18.0	...	23.0	14.0
*Philadelphia	18.0	...	23.0	14.0
*Scranton	18.0	...	23.0	14.0
*Allentown	18.0	...	23.0	14.0
*Altoona	18.0	...	23.0	14.0
Dover, Del.	20.0	2.0	23.0	14.0
Wilmington	20.0	2.0	23.0	14.0
Providence, R. I.	20.0	...	23.0	14.0
Springfield, Mass	20.0	...	23.0	14.0
Worcester	20.0	...	23.0	14.0
Boston	20.0	...	23.0	14.0
Hartford, Conn.	21.0	...	24.0	14.0
New Haven	21.0	1.0	24.0	14.0

*Pennsylvania tax of 2 cents is collected by the dealer and paid by him direct to the State.

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Omaha	11.0	...	13.0	11.5
Crawford	17.0	...	....	12.25
McCook	15.0	...	17.0	13.0
Norfolk	14.75	...	16.75	12.0
North Platte	16.0	...	15.0	12.75
Scotts Bluff	17.25	...	19.25	12.25

SOUTHWESTERN DISTRICT

Magnolia Petroleum Co.

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
Dallas, Tex.	12.0	1.0	16.0	10.0
Fort Worth	12.0	1.0	14.0	11.0
Houston	13.0	1.0	17.0	12.0
San Antonio	14.0	1.0	17.0	10.0
El Paso	12.0	1.0	14.0	12.0
Muskogee, Okla.	15.0	2.5	20.0	11.0
Oklahoma City	14.5	2.5	19.0	10.0
Tulsa	13.0	2.5	18.0	10.0
Ft. Smith, Ark.	17.0	4.0	20.0	12.0
Little Rock	20.0	4.0	23.0	13.0
Texarkana	18.0	4.0	21.0	13.0

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
New Orleans, La.	15.5	2.0	18.5	9.0
Alexandria	17.5	2.0	20.5	13.0
Baton Rouge	16.0	2.0	19.0	11.5
Lake Charles	17.5	2.0	20.5	13.0
Shreveport	17.5	2.0	20.5	13.0
Memphis, Tenn.	16.0	2.0	18.0	14.0
Chattanooga	17.0	2.0	19.0	14.5
Knoxville	19.5	2.0	21.5	15.0
Nashville	18.5	2.0	20.5	13.5
Bristol	20.0	2.0	22.0	13.5
Little Rock, Ark.	20.0	4.0	22.0	13.0

OHIO

Standard Oil Co. (Ohio)

	Gasoline Tank wagon	Gasoline Incids tax	Gasoline Service of station	Kero. Tank wagon
All Ohio Points	17.0	...	19.0	14.0

TANK WAGON CHANGES

August 8.—Standard Oil Co. of Kentucky reduced kerosene at most Mississippi points. No change at Jackson.

August 12.—Magnolia Petroleum Co. reduced gasoline tank wagon 1 cent and service station 2 cents at Fort Worth.

August 13.—Standard Oil Co. of Kentucky reduced kerosene tank wagon and gasoline tank wagon and service station prices 1 cent in Georgia, Alabama and Florida points except Savanah, Ga., where no change was made in gasoline. Same company reduced gasoline tank wagon and service station prices 1 cent at Mississippi points and 2 cents at Lexington, Ky.

August 14.—Standard Oil Co. of Kentucky reduced gasoline tank wagon prices 1 cent at Covington, Ky.

August 14.—Magnolia Petroleum Co. reduced gasoline tank wagon and service station prices 1 cent at Muskogee, Oklahoma City and Texarkana.

August 16.—Magnolia Petroleum Co. reduced gasoline tank wagon 3 cents and service station 2 cents at Houston, Texas.

NORTH TEXAS MARKET REPORTS UPWARD TREND

FORT WORTH, Tex., Aug. 16.—The refined oil market of the North Texas district for the past week was in a way satisfactory to manufacturers and marketers. Orders were more plentiful and an upward trend in prices for both light and heavy oils accompanied by a stiff demand helped to stabilize a depressed market. Under a heavy demand, prices on light oils increased from ¼ to ½ cent. As a matter of fact the market was oversold with the possible exception of fuel oil and that product was steady to firm, with an increasing demand from cotton gins and oil mills. Inquiries were numerous for kerosene, though no sales were reported, at an increase in price. Gas oil, scarce, only car lot orders for immediate shipment are accepted.

COASTAL QUOTATIONS FOLLOW CRUDE FALL

HOUSTON, Tex., Aug. 16.—With the decline of Coastal heavy crude prices 15 cents a barrel, from 1.50 to $1.35 for Grade A, the refined market structure—lubs and gas oil—showed a sympathetic fall of practically 1 cent on all grades, including zero black, pale, pale filtered and red oils. The cut in crude came Saturday, August 9, and refined products adjusted correspondingly the Monday morning following.

Fuel oil remained stationary at $1.45-$1.55 the barrel, the adjustment on falling crude prices having taken effect Saturday, August 9. Fuel and gas oils are contracted for nearly refinery output months ahead. This is true of the smaller refineries.

GASOLINE HOLDS FIRM, OIL CITY REPORTS

OIL CITY, Pa., Aug. 16.—Conditions in the Northwestern Pennsylvania refined district were reported to be about the same as the previous week.

Gasoline remains in fairly good shape. The prices are holding firm.

Wax is the feature of the market and is extremely strong. Refiners report a big demand for the product and are sold up for the next 30 to 60 days. Neutrals continue weaker.

The demand for fuel oil is not as good as compared with the previous week.

The condition of kerosene is fairly good with the price still holding up.

ROSECRANS WELL 1,100 BBLS.

LOS ANGELES, Cal., Aug. 19.—The Superior Oil Co. has completed an 1,100-bbl. well at Rosecrans which proves up the southern part of the field.

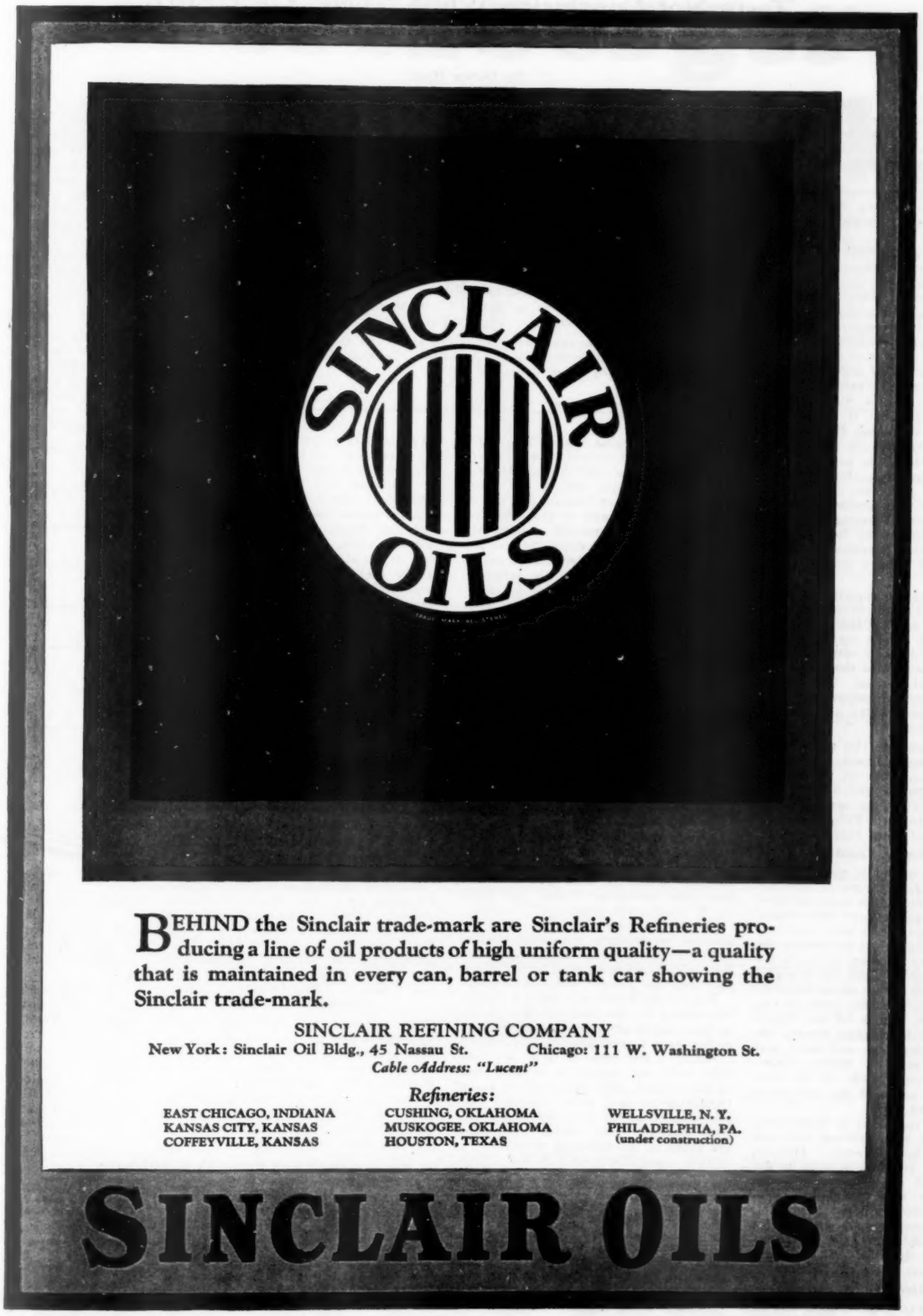
MID-CONTINENT REFINERY RUNS FOR THE WEEK ENDING AUGUST 9

Mid-Continent refiners for the week ending August 9 did not reduce their gasoline stocks as much as the previous according to the weekly statistical report of the Western Petroleum Refiners Association. The total reduction was slightly less than 3,000,000 gallons in contrast to the 7,000,000-gallon decrease the previous week. Stocks of gasoline increased in Kansas and North and Central Texas. They decreased 4.49 per cent in Oklahoma with a large decrease of 14.53 per cent in the North Louisiana and Arkansas area. Crude runs to stills for the week ending August 9 were 2.5 per cent greater than the previous week. This brought an increase in gasoline production of 2.1 per cent with shipments 10 per cent less than the previous week. Kerosene stocks increased approximately 400,000 gallons during the week and the increase in gas and fuel oil stocks was approximately 2,500,000 gallons.

	Kansas Aug. 9	Oklahoma Aug. 9	North and Central Texas Aug. 9.	North Louisiana and Arkansas	Mid-Continent Total	Aug. 2	July 12	June 7
Number of refineries reporting	27	62	42	10	141	141	141	140
Daily still capacity, barrels	102,600	265,700	105,550	25,000	498,850	498,850	498,850	482,350
Combined operations during week—								
Materials to stills, barrels—								
Crude, item A	410,764	723,203	370,229	79,427	1,583,623	1,546,824	1,630,859	1,524,432
Other oils (see note) item B	43,443	129,687	44,927	14,175	232,232	251,989	237,838	201,903
Total	454,207	852,890	415,156	93,802	1,875,855	1,797,813	1,868,697	1,726,335
Output, gallons—								
Gasoline, item C	7,353,063	13,888,042	6,066,591	868,622	28,176,318	27,596,438	28,930,570	25,199,382
Kerosene, item D	2,093,678	3,633,517	1,122,085	272,077	7,121,357	7,389,599	6,562,333	5,733,385
Gas and fuel oil, item E	9,158,168	14,343,072	7,222,203	1,740,552	32,463,995	31,753,711	31,832,937	32,151,150
Stocks on hand at close of week—								
Materials for stills, barrels—								
Crude, item J	376,918	4,034,566	1,133,097	807,185	6,351,765	6,150,906	6,738,369	7,142,139
Other oils (see note), item K	136,292	1,149,724	325,782	510,360	2,022,148	2,046,685	2,953,566	1,984,362
Finished products, gallons—								
Gasoline, item L	14,727,926	82,760,361	15,979,048	439,658	113,906,993	116,739,296	120,234,002	139,741,209
Kerosene, item M	4,425,949	13,695,724	5,230,418	117,663	23,469,754	23,041,397	21,265,633	17,505,411
Gas and fuel oil, item N	12,715,492	78,693,983	15,430,082	3,832,874	110,672,433	108,006,553	102,630,949	97,730,482

Note—Other oils includes all oils other than crude which are either purchased or withdrawn from stocks and run to stills during the week. The total of items A and B is, therefore, the net quantity of materials consumed by the reporting refineries in producing the quantities of products shown as the result of the operations of the refineries during the week. Item K includes all stocks of oils, other than crude, held for further refining.

(Continued on Page 70)



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SINCLAIR OILS

Oil Possibilities in Western Washington

Tests Not Conclusive While There Are Positive Surface Indications of Oil and Gas; Found in Wells

By Dorsey Hager

SUMMARY

1. The facts show that not one adequate test for oil or gas has been made in western Washington.
2. That there is positive surface evidence of oil and gas in the western part of the State, and oil and gas have been found in wells.
3. That favorable statigraphic conditions, such as good sands, and organic shales exist.
4. That such beds can be reached with the drill.
5. That there are good anticlines and domes to concentrate oil.
6. That the area is accessible.
7. That the strategic position of oil or gas fields in western Washington, as regards markets, pipe lines, refineries, is ideal.

Whether or not commercial oil or gas exists can only be determined by drilling, but all the evidence definitely leads to the conclusion that the area is well worth testing for oil or gas.

This paper embodies the results of seven months study of the oil and gas possibilities of western Washington. In that time a number of facts have been ascertained that lead to the conclusion that oil and gas in commercial quantities should be found in western Washington. This paper deals with known conditions only.

The finding of commercial oil or gas fields in Western Washington means much for the future of the Northwest Coast. At present Washington and Oregon obtain their oil products mainly from California. In a comparatively few years California will be unable to supply this market. The opening of a good supply of light oil, oil of 40 degrees Be. or better, is expected in Washington and will furnish not only the State's needs and those of Oregon but if oil in sufficient quantities be found, British Columbia, Utah, Idaho, Nevada and Northern California will also be good markets for Washington products. Further than this, Washington ports are 1,500 miles nearer the Orient than California ports. This difference give Washington a big advantage over California for Oriental trade. Strategically Washington is remarkably situated from a market viewpoint.

The finding of commercial gas in Washington would mean cheaper fuel, for domestic heating and for industrial purposes, and should give a manufacturing impetus that would be far reaching in its effects. For these reasons the search for oil and gas is well justified. The conclusions and data herein presented will show the true conditions so far as they are known at this time.

The area discussed in this paper takes in particularly, Pacific, Lewis, Grays Harbor, and Thurston Counties in western Washington, although the sketch map given here, showing the wells drilled, takes in an area from the Columbia River to the Straits of San Juan de Fuca.

Character of Country

Western Washington is an area having numerous rugged ranges of hills rising 300 to 1,800 feet above mean sea level with wide valleys between the ranges. The hills roughly indicate structural conditions such as anticlines or domes; the valleys are mainly synclinal or cut in the sides of anticlines or along the plunging noses of the folds rarely along the anticlinal axes. The hills have been, or are, heavily timbered. Much of the timber has been cut but large areas remain forested. The valleys are cultivated and are mostly clear of heavy timber Glacial drift occurs north of the Chehalis River but south of the river it is practically absent.

Exposures of rocks can be found readily along stream beds, railroad cuts, and the cuts on the highways. Detailed geological work, however, is by no means easy although it can be done to better advantage than was thought at first. Plane table surveys are not practicable in most of the area nor are such surveys necessary to delineate the structure. Strike and dip symbols, and formation contacts are most efficient.

Accessibility

There are numerous good highways across the area, numerous logging railways reach close to the various points where drilling sites may be selected. The Great Northern, Northern Pacific, the Union Pacific, Milwaukee and St. Paul Railroads have main or branch lines to the numerous towns and small cities within the area discussed. Any drilling point known would not lie over 10 miles from a main railroad line, and none over 5 miles from a logging road. Two good harbors, namely, Grays Harbor at Aberdeen and Hoquiam, and Willapa Harbor at South Bend are within the area. Olympia, Seattle and Tacoma are within 100 miles of the center of the area and Portland, Ore., not over 150 miles away.

Drilling operations could be carried on all winter. The winter rainfall varies from 80 to 100 inches but the temperature seldom falls low enough to cause freezing, although the weather is raw. Snow is infrequent and lasts only a few days. The climate is much like California with the exception of heavier rainfall and more cloudy weather in the winter. The summers are clear and not so warm as those of California.

Results of Drilling

There is a general impression that western Washington has been thoroughly tested for oil and gas. This is based principally on the results of the Standard Oil Co. of California at Moclips and at Pacific Beach, in Grays Harbor County. The results of these two tests were negative, it is true, but the geological conditions make it clear that the Standard Oil tests were not so placed as to constitute adequate tests. In fact it would have been most surprising if they had found oil in commercial quantities.

The Moclips test, 3,860 feet deep, was situated on a sharp plunging anticline, but so far down on the fold that the well falls in the trough or structural basin of the anticline, a most unfavorable place.

The Pacific Beach test, 4,225 feet deep, was drilled 2 miles from the Moclips test in flat country an on no known structure, in fact near a syncline.

Within a few miles of these two tests, older beds, not touched in drilling, come to the surface. The Standard Oil Co. of California to have made adequate tests should have tested the good closed fold. This was not done. Other tests noted are listed in the following table:

Anyone taking the time to study the field conditions at these tests will be fully convinced that the western part of the State has not been tested in any particular except to prove that the synclinal locations and also locations far down the flanks of anticlines are not places to drill. There are only three tests on top of well recognized anticlines, namely the Jefferson oil well at Hoh Head, 1,100 feet deep, on a sharp fold with 80 degree dips on north side, 50 degree dips on the south side; the Green River coal test, 12 miles east of Auburn, 1,400 feet deep, apparently in good location, but only a coal boring; and the Standard test at Moclips which was discussed earlier. Such tests prove very little.

Oil showings were found in the Scheel coal test at Tenino and in the Forks test at Forks. Other tests report oil but the two I mention are best authenticated. Second hand information regarding oil showings is always dangerous to accept unless carefully checked. Gas in large amounts was found in the Orting and the Sol Duc test which is still drilling. The best estimate is 5,000,000 feet of wet gas.

Surface Oil and Gas Indications

Oil showings are found in the Jefferson oil seeps near Hoh Head, in Clallam County. Other oil showings are found in basaltic tuffs in quarries at North Head, near Ilwaco, and at South Bend, both in Pacific County. Paraffine is found near Ilwaco, Pacific County, and near Chehalis, Lewis County.

Conditions Essential

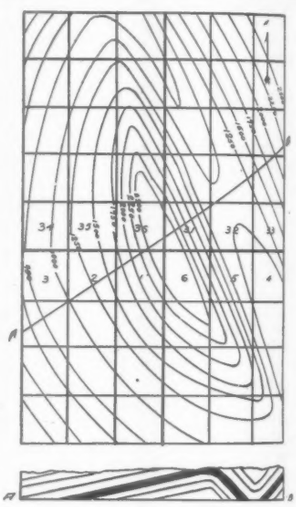
Gas escaping from mud cones is found at Taholah and also near Moclips, Grays Harbor County. No doubt other gas and oil showings will be brought to light as detailed work is carried on.

Development to date shows that no adequate tests for oil and gas have been made and that positive indications of oil and gas exist in this area.

It is now so well understood that comment is hardly necessary that good structural and favorable stratigraphic conditions should exist in a new area if oil or gas in large quantities be expected. In simpler terms, domes and anticlines should exist to control accumulation of oil or gas, and, further, good sands or sandstone reservoirs should be present to hold the oil and gas. Further the fact that rich organic shales are present underlying and overlying the sands is most desirable. All these conditions are met in western Washington.

Stratigraphy

The area covered in this paper lies west of the Cascade Mountains and south of the Olympic Mountains, extending almost to the Columbia River. The beds dip westward from the Cascade Range and have a general southward trend from the Olympic Mountains to the line of the Chehalis River from which point they rise southward to the low range of hills midway between the Chehalis and the Columbia Rivers, where the beds have a general southward trend to the Columbia River.



Sketch of the Fold

The deepest structural basin occurs in the neighborhood of Montesano and of Aberdeen. The beds exposed in the basin are upper Miocene in age. To the north, to the south and to the east beds of Oligocene and Eocene age are exposed. A number of anticlinal folds are found in this area starting in beds of Miocene, Oligocene or Eocene ages.

The Miocene sediments are 6,000 feet

(Continued on Page 112)

TABLE OF WELLS DRILLED IN WESTERN WASHINGTON

Localities	County	Drilled by	Depth	Geology.	Results
1. Sequim,	Clallam	Sequim Oil Co.	1,400	Monocline	Report showings of oil and gas
2. Forks,	Clallam	Forks Drilling Co.	(a) 2,100	Conditions	(a) Oil at 1,900 feet.
			(b) 2,300	Unknown	(b) Some gas and oil.
			(c) 1,000	Now drilling	(c) Drilling.
3. Forks,	Clallam	Sol Duc Oil Co.	*1,900	Anticline or fault	4,000,000 feet of gas authentic.
4. La Push,	Clallam	———	600	Sharp fold	Oil and gas reported.
5. Hoh Head,	Jefferson	Jefferson Oil Co.	1,108	Sharp anticline	Report gas and oil showings.
6. Taholah,	Grays Harbor	Paulhamus	820	Faulted fold	Gas—no question.
7. Copalis Rock,	Grays Harbor	Local group	800	Indeterminate fold	Gas.
8. Bremerton,	Kitsap	———	1,400	No structure	Negative.
9. Ballard,	King	———	2,800	No structure	Negative.
10. Orting,	Pierce	———	2,600	Not on structure	Reported 1,500,000 feet gas.
11. Centralia,	Lewis	Pacific States Oil Co.	1,400	Syncline	Gas in hole now
12. Tenino,	Thurston	(a) Scheel Coal test.	1,000	Down flank anticline	(a) Oil at 900 feet.
		(b) Oregon-Washington	1,100	Anticline	(b) Showing oil an d gas.
		(c) Crescent Oil Co.	2,800	No folding	(c) Report oil; probably salted.
13. Moclips,	Grays Harbor	Standard Oil Co. of Cal.	3,860	Plunging fold in Pleistocene beds	Some gas.
14. Pacific Beach,	Grays Harbor	Standard Oil Co. of Cal.	4,225	Syncline	Some gas.
15. Raymond,	Pacific	Raymond Oil Co.	1,800	Far down on anticline	Showings of oil reported.
16. Humptulips,	Grays Harbor	Grays Harbor Pet. Corp.	1,000	Down flank on an-cline	Showings of oil and gas.
17. Tulips,	Grays Harbor	Grays Harbor Pet. Corp.	600	Structure undetermined	Showings of oil and gas.
18. Green River 12 miles east Auburn	King	Lawson	1,400	On top of anticline	Considerable gas; will burn now; coal test.
19. Astoria,	Clatsop, Oregon	Local people	4,808	Syncline	Report oil and gas.

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MEMBER AUDIT BUREAU OF CIRCULATION

PRICE ANARCHY

The hearings at Jefferson City, Mo., in the investigation being conducted by Attorney General Barrett into the price of gasoline in that State have been more remarkable for the admissions of those who cut the price than for any testimony against those blamed for keeping it up.

Business men in other lines who thoughtlessly may be applauding the campaign against the oil industry might profitably pause to ask themselves how they would like to have to face similar conditions in their own business.

How would they like to have their business at the mercy of the cut-throat methods and tricks admitted to have been employed to force down the price of gasoline in Missouri?

How would they like to have the value of their product set by a few of those who sell it without regard to the cost of manufacture?

What would be their attitude towards a popular sentiment that clamored for a general reduction in price of their products to the level set by "distress" sales in a few districts and demanded their prosecution if they did not comply?

The testimony reported in The Oil and Gas Journal of last week shows very conclusively that the price cutters had no concern except their own immediate profit.

There was no question of getting cheaper gasoline for the public, but simply of holding or gaining gallonage for the moment.

The case of two competitors making an agreement to haul cheaper gasoline from a distance and thus forcing the companies from which they respectively bought their ordinary supply to reduce their prices is illuminating. Yet in the face of such testimony it is asserted the major companies manipulate prices!

They were unable to dominate there against this scheming for a reduction. And the fact that they were not able to prevent this price cutting is cited as a sample of discrimination for which they are held responsible!

One witness gave his opinion that the large companies were a stabilizing influence upon the industry and kept the smaller dealers from cutting prices which would ruin the industry.

It would be better for the industry and for the consuming public if prices could be stabilized, avoiding the wild fluctuations between panic and famine prices. But the popular notion is that the panic prices are the real prices and anything above that is robbery to be punished with all the power of the law.

One summary of the Jefferson City hearings, at the close of the first week's testimony, said virtually all the witnesses admitted that if the leading company were removed from the field gasoline prices would fall from 4 to 5 cents, adding naively, "it is not contended that such a reduction could be long maintained."

Precisely, because, in the long run, gasoline or any other commodity cannot be sold indefinitely for less than it costs to produce or without profit to its makers, regardless of what company is the largest or whose quotations are cited.

Much ado was made at Jefferson City over dealers asking for the daily prices of the larger seller. How is it in any other business dealing with a commodity on which prices change from day to day or week to week? Butter, for instance, or eggs, or sugar?

The daily newspapers publish quotations for butter and eggs and sugar and other commodities with a daily or weekly price range and they are consulted by every dealer. Even the farmers are not above looking up the ruling quotations before fixing a price on their products to their customers.

Is what is all right for butter and eggs and sugar all wrong in regard to gasoline? Must it be a crime to inquire what a competitor is selling it for? It would seem so assumed from some of the comment at the Missouri capital.

And it cannot be because the public is being gouged on gasoline prices and being treated to bargain prices in butter and eggs and sugar because the records of the Government show that gasoline has been sold lower ever since 1913 than butter, sugar, eggs or all commodities combined.

The Missouri investigation is said to have been inspired by the wide difference in the prices of gasoline in Missouri cities. The testimony last week showed very clearly that this difference was caused by price cutting regardless of cost of product.

It exposed, not a conspiracy to keep up prices, but cut-throat methods employed to force them down. The public, intent only on the immediate price, may be misled into approving this sort of business in the oil industry which it would resent bitterly in its own business. But it knows that no other business could survive such general anarchy and it must not expect the oil business to do the impossible.

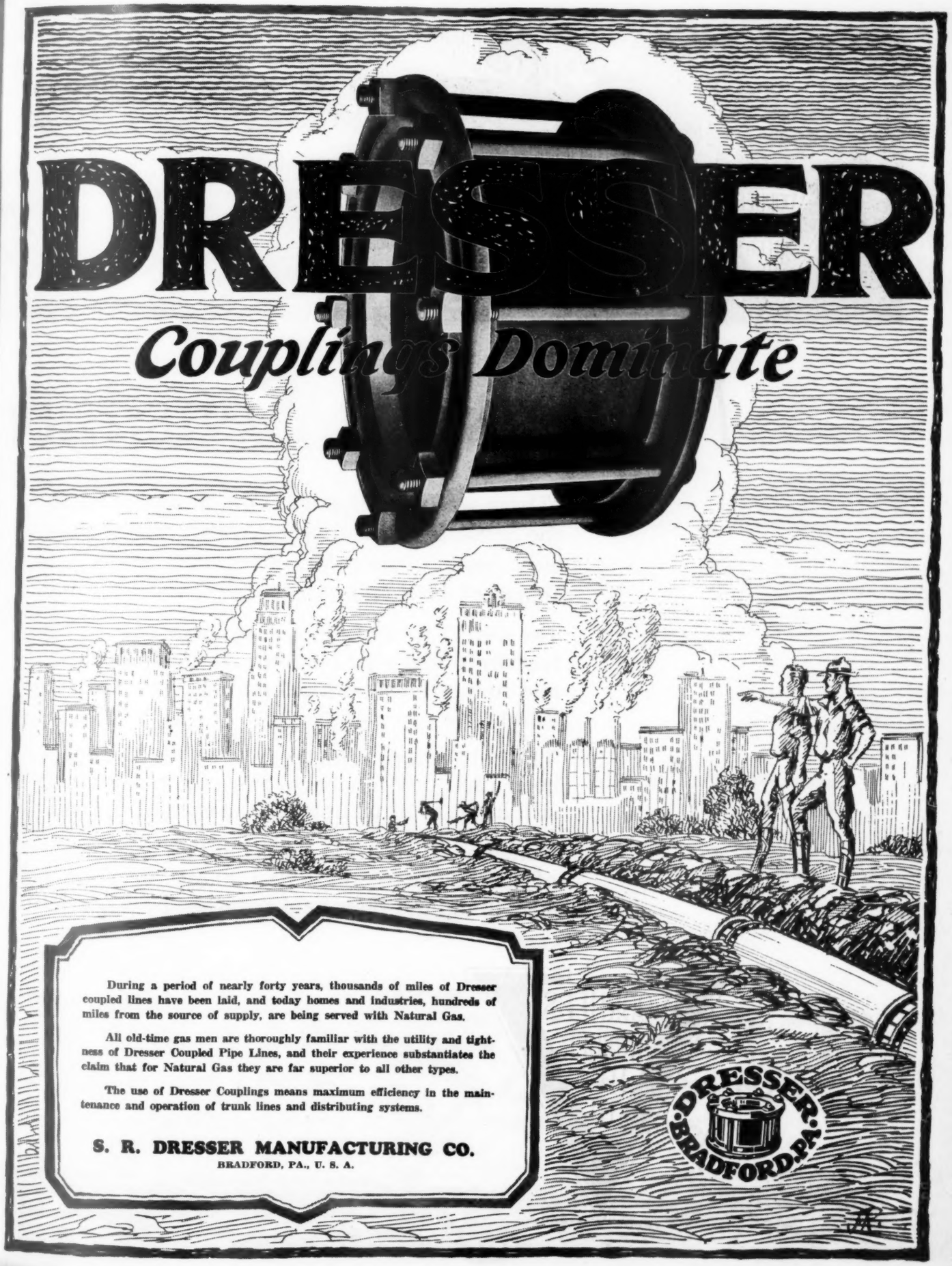
Without any stabilizing influence the price of gasoline would fluctuate very much more wildly than it does today. There would be not only the discriminations which the Attorney General of Missouri protests, but thousands upon thousands in every town and city based only on "what the traffic would bear."

With gasoline in politics, too, we should have more publicity like this from the Clark Pilot Review of Clark, South Dakota:

> Hon. John Stenning, of Logan, was a Clark caller Wednesday. Mr. Stenning, besides being one of the best known members of the State Legislature also is a member of the State Budget Board and is interested in the operation of all State institutions. He stated to the Pilot Review that while at Watertown recently he made a study of the State gasoline filling station and whether or not it is costing the State anything. Gasoline is selling there, he stated, for 16 cents per gallon and after deducting all charges of operation for gasoline, freight, etc., that the station is turning over to the State on the average of $500 a day for the people. A profit of 2 cents a gallon is taken by the State and with that small margin the State is making $500 a day for the people.

A letter from a subscriber to The Oil and Gas Journal at Clark, enclosing this clipping, says "the State filling station at Watertown has a tank of 10,000 gallons, one Wayne hand pump, tin box for cash register, and three attendants," adding that "it looks impossible for that outfit to crank out 25,000 gallons a day."

Let us subject this legislator's statement to cold analysis. Suppose the Watertown station operated 16 hours—960 minutes. It would require that lone pump to sell 25 gallons every single minute for the entire 16 hours to dispose of the 25,000 gallons needed to earn that $500 a day!


DRESSER
Couplings Dominate
During a period of nearly forty years, thousands of miles of Dresser coupled lines have been laid, and today homes and industries, hundreds of miles from the source of supply, are being served with Natural Gas.
All old-time gas men are thoroughly familiar with the utility and tightness of Dresser Coupled Pipe Lines, and their experience substantiates the claim that for Natural Gas they are far superior to all other types.
The use of Dresser Couplings means maximum efficiency in the maintenance and operation of trunk lines and distributing systems.
S. R. DRESSER MANUFACTURING CO.
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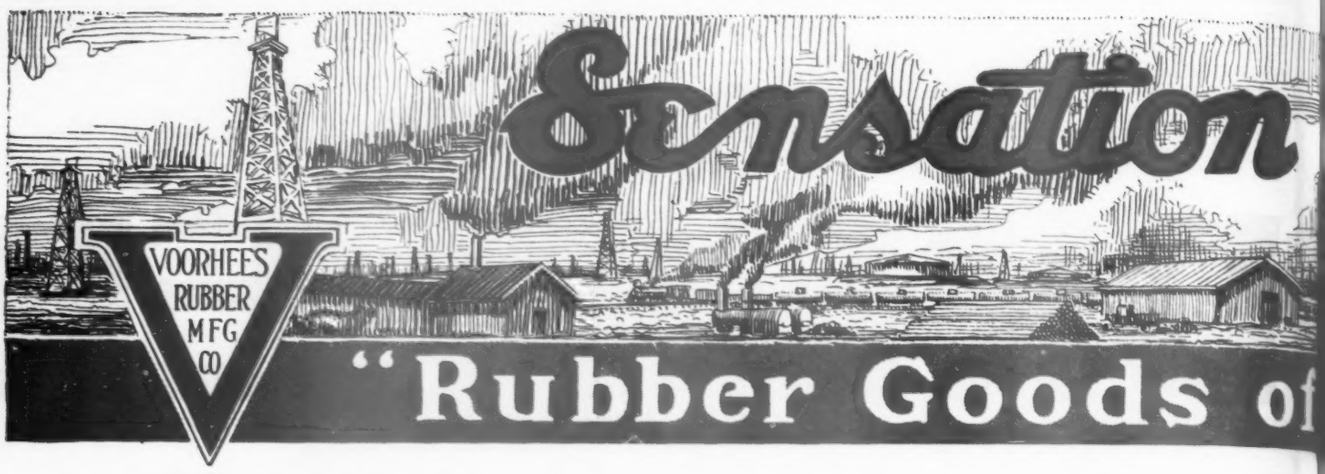


None but a Sensation

"There was less slippage, stretch and wear to the Sensation Belt than any other that I have ever used," writes Mr. Swoveland, who has charge of the Reinhart lease in the Ranger Pool.

The well that this belt has been used on is 3,570 feet deep. It pumps 24 hours a day. The tubing and rods require frequent pulling. One tedious fishing job was experienced.

The belt was purchased in June 1923 and has been used continuously. The clamp bolts are still in the original holes at the ends of the belt.

None but a Sensation Belt could do this. Made of special weave duck that allows very little stretching and plies held together by a special

VOORHEES RUBBER MFG CO.
TRADE MARK

Belt could do this

friction, the result of years of experience, there is no ply separation (bootlegging) or riding the clutch. Forms perfect contact with pulleys. It is strong, flexible and weather-proof.

Carried in stock at the Factory Branch at Kansas City, Mo., and at the following Bridgeport stores:

Rising Star, Texas	Depew, Okla.	Augusta, Kans.
Ft. Worth, Texas	Sayre, Okla.	El Dorado, Kans.
Ranger, Texas	Wewoka, Okla.	Madison, Kans.
Breckenridge, Texas	Tulsa, Okla.	Marietta, Ohio
South Bend, Texas	Wetumka, Okla.	Shidler, Okla.
Tonkawa, Okla.	Florence, Kans.	Stroud, Okla.

THE BRIDGEPORT MACHINE COMPANY

General Offices & Works WICHITA, KANSAS

Oklahoma Field Operations

By C. D. Lockwood

Week in Oklahoma opens with a production around 530,000 bbls. a day; 10 wells in Tonkawa flowing 43,000 bbls.; Cromwell gains but little, but 41 new locations were made there in past week. Enormous production predicted for Tonkawa. Interesting outside wells.

TULSA, Okla., Aug. 18.—With the Tonkawa Field showing a production of approximately 70,000 bbls. on Sunday, a gain of 9,000 bbls. over the corresponding day a week previously and the Cromwell Field making 63,000 bbls. or 1,000 bbls. more than it was reported seven days before, Oklahoma opened the week with a production of about 530,000 bbls.

There was a reduction in the production of the Wewoka Pool and a falling off in the many old fields where little active work has been done since the decline in the price of crude which partly offset the gain in Tonkawa. The Cromwell Pool was up to nearly 65,000 bbls. one day but it declined sharply in the latter days of the week because there were no completions within that time. Wells in the older part of the Cromwell Field declined and brought the production down to 63,000 bbls. This is only a lull, however, and Cromwell will come back strong later on when the next batch of drilling wells hit the pay. There were 41 new locations made in Cromwell in the course of the past week and many of those are already covered with material and partly built rigs.

Thomas B. Slick's test, C SW SW SE, Section 35-10-9 northeast of the Papoose Pool is an important well flowing 30 bbls. an hour on Sunday from sand at 3,330 feet drilled only 2 feet.

In the Cromwell Pool there was no important change in the status of the Central National Oil Co.'s well in Section 4-10-8, reported last week but the Sinclair-Transcontinental test in Section 9-10-8 was flowing 3,613 bbls. a day. The Roxana Petroleum Corp.'s No. 4 Brown, C SE NW SW, Section 10-10-8, was producing 35,000,000 feet of gas from sand at 4,420 feet drilled in 53 feet and producing 140 bbls. of oil per hour.

Ten Deep Sand Wells

In the Tonkawa Field the past week ended with 10 producers in the deep sand making 43,000 bbls. a day. Of these the Pennok Oil Co.'s No. 4, SE cor. Section 34-25-1w was the latest. It got sand at 4,013 feet and was 7 feet in the sand. More deep wells are expected in this week. There are 48 wells now drilling for the deep pay, 10 oil wells and one dry hole (on the Koffenbrink farm). The Marland Refining Co. has made a deal with Ossenbeck & McMan for a half interest in their lease in the south half of the southwest quarter of Section 26-25-1w where there is a 3,600-foot dry hole. It will be given a test to the Slick sand. The Marland Refining Co. will drill the test. A number of new tests were started for the deep pay in the past week and all sorts of prophesies are being made as to what the Tonkawa production peak will be, some of these going as high as 150,000 bbls. a day.

The Prairie Oil & Gas Co. gladdened the hearts of royalty owners in the past week when it announced that the storage plan will not be applied to royalty oil for the present, and that payment for such royalty for this period is being made in full in accordance with division orders on file. This applies not only to Indian lands but to all leases whereon the Prairie purchases oil.

Holdenville District

Following is the average daily production of the Cromwell, Papoose and Wewoka Pools in the Holdenville district, Oklahoma, for the week ending August 12:

	No. Wells	Av.Dy. Prod.
Cromwell—		
Amerada Petroleum Co.	4	3,110
Berry Petroleum Co.	1	651
Burke-Greis Oil Co.	1	2,348
Carter Oil Co.	6	5,693
Carter Oil Co. & Gardiner	1	1,545
Central National Oil Co.	1	984
Sinclair & Transcontinental	1	2,388
Cosden Oil & Gas Co.	6	2,105
Gilliland Oil Co. et al	2	2,269
Gypsy Oil Co.	12	12,062
T. B. Hoffer et al	4	2,779
Holmes & Jarvis	3	206
Independent Oil & Gas Co.	2	250
McMan Oil Co.	5	2,476
Mid-Kansas Oil & Gas Co.	4	4,969
Roxana Petroleum Corp.	2	3,467
Shaffer O. & R. Co.	6	6,628
Pure Oil Co.	1	1,568
Snowden & McSweeney	1	1,298
Superior Oil Co.	1	2,052
Tidal Oil Co.	6	1,984
Wilcox Oil & Gas Co.	4	1,735
Total August 12	73	63,497
Total August 5	69	60,379
Increase	4	3,118
Wewoka Pool—		
Dixie Oil Co.	29	2,576
Gypsy Oil Co.	2	1,306
E. P. Harwell	2	596
Homaokla Oil Co.	1	94
Independent Oil & Gas and Atlantic O. P. Co.	2	36
Independent O. & G. and Sapulpa Refining Co.	1	24
Independent O. & G. and Sinclair Oil & Gas Co.	6	349
Lewis & Clark	1	47
Magnolia Petroleum Co.	10	1,233
Producers & Refiners Corp.	12	443
Boggs & Sikes	1	709
Total August 12	67	7,413
Total August 5	67	8,121
Difference	0	708
Papoose Pool—		
Arkansas Fuel Co.	1	30
Berry Petroleum Co.	4	3,000
Cosden Oil & Gas Co.	1	382
Foster Investment Co.	1	347
Gilcrease	3	174
Gilcrease & Papoose Oil Co.	1	23
Independent O. & G. Co.	1	15
Kingwood Oil Co.	4	1,387
Magnolia Petroleum Co.	1	62
Oklavania Oil Co.	1	40
Papoose Oil Co.	13	4,863
Robinson & Amerada Petroleum Corp.	1	1,180
Thomas B. Slick et al	2	679
Transcontinental Oil Co.	4	850
Total August 12	38	13,032
Total August 5	36	12,905
Increase	2	127

Late Cromwell Gauges

Gauges on the following wells in the Cromwell Pool as of Saturday, August 16, were Central National Oil Co.'s No. 1 Dunn, C SW SE SE, Section 4-10-8, top of sand at 3,322 feet, 65,000,000 feet of gas and 45 bbls. an hour, total depth 3,379 feet. Wilcox Oil & Gas Co.'s No. 1 Bruner, NW cor. SE SW, Section 15-10-8, sand at 3,474-3,556 feet, started at 45 bbls. an hour, now 300 bbls. a day; same company's No. 6 Bruner, C SW SW SW, Section 15-10-8, sand at 3,452-3,515 feet, 600 bbls. a day; No. 5 Bruner, 2,400 bbls. a day; Mid-Kansas Oil & Gas Co.'s No. 1 Alexander, C SW NW NW, Section 15-10-8, sand at 3,425-89 feet, 100 bbls. an hour. Nos. 1, 2, 3 and 4, all running into the same tank, production of the four wells on August 16, 6,250 bbls.; same company's No. 4 Alexander, C NE NW NW, Section 15-10-8, sand at 3,429-3,520 feet, 85 bbls. an hour. Snowden & McSweeney's No. 1 Tiger, C SW NW NE, Section 15-10-8, sand at 3,417 feet, 1,506 bbls., now 1300 bbls., Amerada Petroleum Corp.'s No. 5 Bruner, C SW NE SE, Section 16-10-8, sand at 3,512-3,611 feet, shot with 8 quarts, production increased from 727 to 800 bbls. Berry Petroleum Co.'s No. 2 Yarhola, C SW NW NE, Section 22-10-8, top of sand at 3,434 feet, drilling in sand and showing 675 bbls.; Sinclair Oil & Gas Co.'s No. 1 and Transcontinental Oil Co.'s No. 1, C SE SW SW, Section 9-10-8, 150 bbls. an hour at a total depth of 3,466 feet, 32 feet in the sand and 18 feet in the pay.

The Burke-Greis Oil Co.'s No. 2, in the southwest of Section 10-10-8, was flowing 1,800 bbls. a day from sand at 3,433 feet, drilled in 18 feet.

The Cromwell Pool on August 13 was making 65,058 bbls. from 73 wells; the Papoose Gilcrease Pool in Township 9-9, 13,032 bbls. from 38 wells and the Wewoka Pool, 7,452 bbls. from 67 wells.

Many New Rigs Up

The good showing of oil in the Central National Oil Co.'s No. 1 Reuben Dunn, in Section 4-10-8, and the big production of the Sinclair & Transcontinental Oil Co.'s No. 1 Bruner, in Section 9, proved up hundreds of acres lying between and otherwise close to the two leases and 41 new locations were made last week which will be represented by drilling wells as rapidly as the derricks can be finished and the materials moved in. This batch of wells should be completed about October 15 to November 1. Of the locations mentioned the Gypsy Oil Co. made one on the Clarence Yarhola 40 acres, SW of Section 3-10-8; Central National Oil Co., one on the Reuben Dunn 80 acres, SW SE, Section 4; Gypsy Oil Co., one on the Jimmie Willis 80 acres, SE NE, Section 8; Prairie Oil & Gas Co., one on the Roy Buckner 160 acres, SE, Section 8; Carter Oil Co., two on the David Hill 40 acres, NW SE Section 9; Sinclair Oil & Gas Co., four on the David Hill 40 acres, NE SW Section 9; Gypsy Oil Co., four on the Jasper Hale 80 acres, S half NE Section 9; Amerada Petroleum Corp., two on the Adam Starr 20 acres, S half SW SW, Section 9; Sinclair Oil & Gas Co., three on the Masiner Bunner 80 acres, W half SW Section 9; Gardner and others and Carter Oil Co., two on the Masiner Bunner 80 acres, E half SW, Section 9; Pure Oil Co., three on the Bunner 160 acres, SE, Section 9; Carter Oil Co., three on the Minnie Hill 40 acres, NW NW, Section 10; Sinclair Oil & Gas Co., three on the Clint Berryhill 40 acres, SW NW, Section 10; Roxana Petroleum Corp., one on the Buckner 40 acres, NE NW, Section 10; Roxana Petroleum Corp., two on the Berryhill 40 acres, SE SW, Section 10; Carter Oil Co., one on the Sallie Little 80 acres, S half SE, Section 10; Roxana Petroleum Corp., three on the Edward Brown 80 acres, W half SW, Section 10, and the Burke Greis Oil Co., one on the Brown 40 acres, SE SW, Section 10. Each of these locations covers 10 acres.

Hughes County Very Active

New work in Hughes County includes the Magnolia Petroleum Co.'s No. 1, C SE SW SW, Section 25-8-7, a rig; No. 2, on same lease, C SE SE SE, Section 25-8-7, a rig; Boggs Oil Co.'s No. 4 Wilson, C NE SE NE, Section 31-8-8, rig; Producers & Refiners Corp.'s No. 1, NE cor, SE, Section 31-8-8, rig; W. R. Ramsey's No. 1, C NE SE SE, Section 31-8-8, a rig; same operator's No. 1, C NE NW SE, Section 31-8-8, a rig; Magnolia Petroleum Co.'s No. 4, C NW SE NW, Section 32-8-8, a rig; Shaffer Oil Co.'s No. 3, C SE SW NW, Section 32-8-8, a rig; W. R. Ramsey's No. 2 Roseanna, C NE NE NE, Section 36-8-7, a rig on the ground; Magnolia Petroleum Co.'s No. 2 Walker, C SW NE SW, Section 29-8-8, rig on the ground; Gardner Petroleum Co.'s No. 1, C SW SW SW, Section 30-8-8, a rig; Magnolia Petroleum Co.'s No. 1 Joshu, C SW SW SW, Section 29-8-8, drilling below 400 feet. Boggs Oil Co.'s No. 4 Wilisa, C NW SE NE, Section 31-8-8, drilling at 400 feet; W. R. Ramsey's No. 1, C NW NW NW, Section 31-8-8, a rig; Magnolia Petroleum Co.'s No. 2 Tiger, NW cor. SW, Section 32-8-8, a rig; Dixie Oil Co.'s No. 3 Long, C NE NE SE, Section 32-8-8, drilling below 800 feet; Shaffer Oil & Refining Co.'s No. 4 Perryman, C NE SW NW, Section 32-8-8, a rig; Magnolia Petroleum Co.'s No. 5, C NW SW NE, Section 33-8-8, drilling below 400 feet.

The Homa-Okla Oil Co.'s No. 1 Brown, NE SW NE, Section 29-8-8, was estimated at 250 bbls. and still drilling in sand topped at 3,186 feet.

The Roxana Petroleum Corp.'s No. 1, C NW NE NW, Section 12-8-8, a wildcat, was showing some oil and along with the 50 or more million feet of gas from sand at 3,400 feet.

Papoose Pool

In the Papoose Pool the Berry Petroleum Co.'s No. 4 Alexander, C NE NW SE, Section 4-9-9, was a 900-bbl. well at 3,329-35 feet. The Foster Oil Co.'s No. 1 Tiger, C SW SW NE, Section 4-9-9, sand at 3,001 feet, drilling at 3,029 feet, with 1,500 feet of oil in the hole. Papoose Oil Co.'s No. 8 Alexander, C SE SE SE, Section 4-9-9, sand at 3,303-10 feet, 400 bbls. Transcontinental Oil Co.'s No. 3 Tiger, C SW SE SE, Section 4-9-9, sand at 3,302-11 feet, 650 bbls.

The Dixie Oil Co. has a rig up for No. 1, C NE NE NE, Section 8-7-8.

Tonkawa Field

In the Tonkawa Field, Kay and Noble Counties, the Carter Oil Co.'s No. 1 Powers, NE cor. Section 21-25-2w, started at 346 bbls. at 2,057-74 feet. The Blackwell Oil & Gas Co. has a rig up for No. 4-C McDaniel (Corrigan), SE cor. NE, Section 34-25-1w. The Comar Oil Co. has a rig up for No. 4-W Endicott, SE cor. NE SE, Section 34-25-1w. The Comar Oil Co. has a rig up for No. 2-W Endicott, NW cor. SW, Section 35-25-1w, and a rig up for No. 9-W, NE cor NW NE, Section 3-24-1w. All the above will be on leases where deep sand production has been found.

Kay County

The O'Kansas Oil Co.'s No. 1 Townsend, NE cor. NW NE, Section 28-26-2w, Kay County, is rigged up. The Marland Refining Co.'s No. 1 Thomas, SW cor. Section 15-25-2w, is rigged up.

Miller and others' No. 1 Poppan, SW cor. NE NW, Section 14-28-4e, was abandoned as dry at 3,640 feet.

Chandler and others are rigged up on No. 1 Benton, SE cor. SW, Section 2-26-4e.

Manahan and others' No. 3 Slocum, NW cor. SE NE, Section 16-27-1w, pumped 75 bbls. a day from sand at 3,426-31 feet. The Carter Oil Co.'s No. 1 Massey, NE cor. Section 17-27-1w, was drilling at 300 feet. The Una See Oil Co.'s No. 1 Johnson, NE cor. Section 18-27-1w, squdded in and shut down. The Alcorn Oil Co.'s No. 1 McCullough, CNL SW, Section 12-26-2w, was a hole full of oil and shut down, sand at 3,579-80 feet. The O'Kansas Oil Co.'s No. 1 Townsend, NE cor. NW NE, Section 28-26-2w, shut down after spudding in.

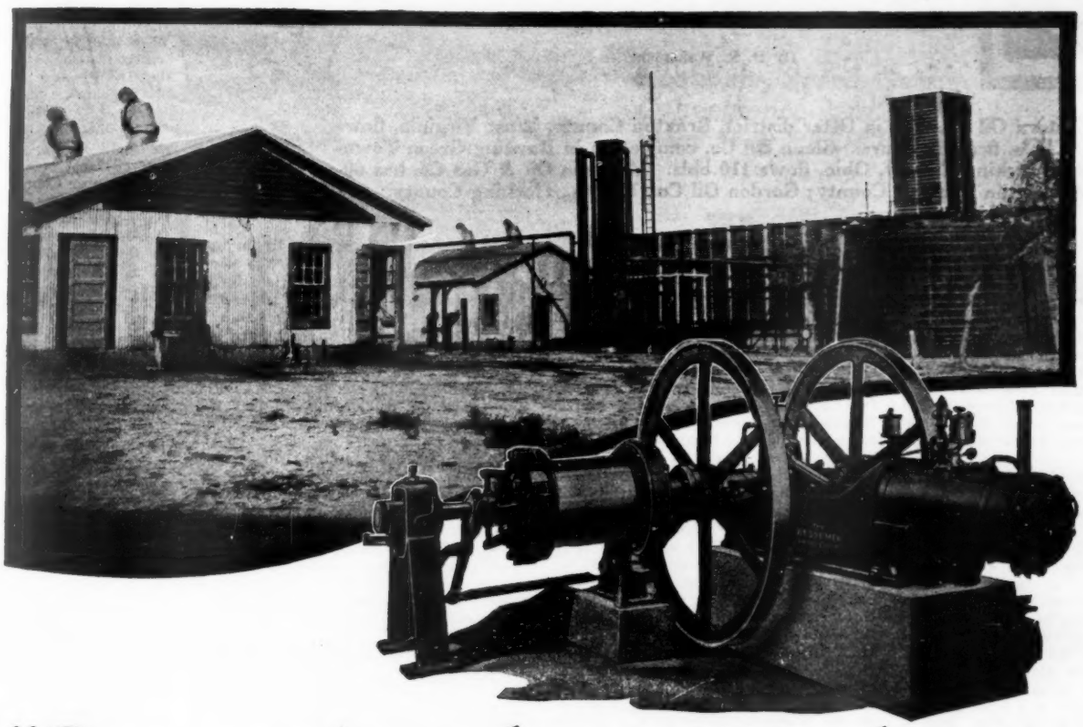
Marland Refining Co. and Miller's No. 2 Walters, SE cor. NW, Section 19-25-2e, was spudded in.

In Grant County, Leewright and others' No. 1 Edwards, SE cor. NW, Section 20-26-4w, was abandoned as dry at 1,100 feet. Marland Refining Co. was drilling up bailer at 3,940 feet in No. 1 Bonham, NW cor. NE, Section 11-26-5w; Walters Oil & Gas Co. has a dry hole at 3,502 feet in No. 1, NE cor. NW, Section 14-25-1w. It has been abandoned.

Osage County

In the Burbank district, Osage and Kay Counties, Phillips Petroleum Co.'s

(Continued on Page 42)



"Our engines have sure been 'balling the Jack'!"

said a typical Bessemer operator in Arkansas the other day to a tenderfoot visitor from the East and the eastern man had to ask further questions in order to learn that *'balling the Jack'* is a term of high praise.

The comment is typical.

No matter into what oil field you go you will find Bessemer operators praising them in the terms of each particular locality, all confirming our repeated statement that—

"You buy the best when you buy the Bessemer"

THE BESSEMER GAS ENGINE COMPANY
52 York Street ⁂ ⁂ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS

Pennsylvania-West Virginia

By D. S. Wakenight

Eastern Oil Co. well in Otter district, Braxton County, West Virginia, flows 150 bbls. first six hours. Glenn Oil Co. completion in Bowling Green Township, Licking County, Ohio, flows 110 bbls. Montana Oil & Gas Co. has 60-bbl. well in Fairfield County; Gordon Oil Co., 15 bbls., Hocking County.

PITTSBURGH, Pa., Aug. 18.—Operations for the past week in the eastern fields were unusually dull in the fore part of the week, but the closing days showed a little bracing up when the Clinton lime sand territory in southeastern Ohio brought in a well which put 110 bbls. of oil to its credit in the first 24 hours after a shot, and the Copley Field in Braxton County, West Virginia, showed a Big Injun sand producer which flowed 150 bbls. in the first six hours after being struck.

In the Copley Field, in Otter district, Braxton County, the Eastern Oil Co. completed its initial test well on the C. L. Engle farm at a depth of 2,203 feet and in six hours the well flowed 150 bbls. of oil from the Big Injun sand. This location is 2 miles from the big producer struck on the Whitesell farm last spring. The well is now shut in.

In the Macfarlan Pool, on the waters of Lambs Run, in Murphy district, Ritchie County, the Hope Natural Gas Co. has completed its initial test on the Alp Scott farm and it is a 3-bbl. per day producer from the Maxon sand. On the waters of Hughes River, same district and county, the Hughes River Oil & Gas Co. completed its first test on the John Rymer farm and has a fair gas well in the Salt sand. In the Pine Grove Field, in Greene district, Wetzel County, the Silver Hill Oil Co. completed its initial test on the Anna Steel and others' farm and has a 10-bbl. per day pumper in the Gordon sand. This location is 8 miles west of Pine Grove but is in defined territory and is not important as extending producing limits. In Center district, Wetzel County, the Hope Refining & Construction Co. completed No. 4 on the J. K. Long farm and has a 3-bbl. per day pumper in the Big Injun sand.

In the Blue Creek Field, on Wills Creek, in Big Sandy district, Kanawha County, the United Fuel Gas Co. completed its initial test on the George Rucker farm and has a fair gas well in the Big Injun sand. This location is 2,000 feet north of the Virginia Gasoline & Oil Co.'s first test drilled on the George Rucker farm. On Leatherwood Creek, in Big Sandy district, same county, the Cosmos Carbon Co. completed No. 15 on the Kanawha County Osborne farm, and has a 3-bbl. per day pumper in the Weir sand. On the waters of Big Sandy, in Big Sandy district, same county, the United Fuel Gas Co. has rigs up for tests on the H. L. Canterbury, J. P. Young, P. O. Saunders, and A. J. Hermann farms.

Lewis County Dusters

Near Gaston, in Court House district, Lewis County, Horner and others completed their initial test on the Hyer heirs' farm through the fifth sand and it is a duster. In the same locality, Moran & Duncan completed their first test on the R. W. Duncan farm in the fifth sand and that formation is barren. The Mud Lick Oil & Gas Co. has a rig up for a test at its first location on the Maud Gillan farm in the same neighborhood.

In the Hebron Pool, in Lafayette district, Pleasants County, the Riggs Hood Oil Co. drilled its second test on the Perry Riggs farm to a depth of 1,842 feet showing for not better than a 5-bbl. per day producer from the Maxon sand. This location is 500 feet southwest of the same company's initial test on this farm. In Troy district, Gilmer County, the Carnegie Gas Co. has a fair gas well at its second test on the E. M. Talbott farm. Gas was struck in the Injun sand at a depth of 1,665 feet.

On States Fork, in Mannington district, Marion County, the Philadelphia Oil Co. drilled No. 4 on the Martha Rowand farm through all the sands and had a showing for a 3-bbl. per day pumper in the 30-foot sand. It will plug the well up to this sand and give it a further test. In Burning Spirngs district, Wirt County, George B. Vance completed No. 41 on the William Gibson farm and after a shot in the Cow Run sand it is showing for a very light producer in that formation. In the same locality, F. E. Grow completed No. 18 on the Rose Whitecotton farm through the second Cow Run sand and it is a dry hole. In Union district, Ritchie County, the Hope Natural Gas Co. completed its first test on the Snow Bartlett farm through the Injun sand and it is dry. In the Tanner Pool, on the Waters of Third Run, in DeKalb district, Gilmer County, the Hope Construction & Refining Co. completed its initial test well on the W. V. Miller farm through the Injun sand and has a fair gas well.

West Virginia Tests

In Grant district, Pleasants County, P. E. Crippin is drilling his second test on the P. H. Race farm. In Grant district, same county, John Capp is putting down his first test on the H. C. McTaggart farm. In the same district and county, C. D. Sloan is drilling his initial test on the Pleasants County farm. In the same district and county, the Johnson Oil Co. started its initial test on the J. Cockley farm. In Jefferson district, same county, the Creek Oil Co. is drilling its second test on the Ogden & Rose farm. In Union district, Tyler County, Morgan Bros. & Co. have a location made for their first test on the Ed H. Brooks farm. In Walker district, Wood County, the South Penn Oil Co. is drilling No. 9 on the A. King farm. On the waters of Leather Bark Creek, in Murphy district, Ritchie County, the Hope Construction & Refining Co. is rigging for an initial test on the J. T. Frederick farm. In the St. Marys Field, in Jefferson district, Pleasants County, the Knight Farm Oil Co. is drilling its third test on the Josephine Knight farm. In DeKalb district, Gilmer County, Okey Bell and others are drilling their first test on the W. A. Simmons farm. In the same district and county, the Star Oil & Gas Co. has a rig up for its first test on the Harriet Garner farm. In the same pool, the Hope Construction & Refining Co. is drilling No. 6 on the Earl Hardman farm. In the Macfarlan Pool, on Indian Creek, in Murphy district, Ritchie County, Grove & Parrish have a rig up for their No. 8 well on the W. A. Smith farm. In the same district and county, the Cold Test Oil Co. has a rig completed for No. 14 on the West Virginia Tract on Oil Spring Run. In Jefferson district, Pleasants County, the Creek Oil Co. has drilled its second test on the Ogden & Rose farm deeper into the First Salt sand and it is showing for a 3-bbl. per day pumper in that formation.

On the Ohio side, in the Clinton lime territory, the week closed with the bringing in of the best well reported during the week on the Ohio side. In Section 13, Bowling Green Township, Licking County, the Glenn Oil Co. completed and shot its initial test on the George M. Bowers farm and in the ensuing 24 hours the well flowed 110-bbl. from the Clinton lime sand. This location is 300 feet south and east of the production on the Frank L. Orr farm.

In the deep sand territory, in Jackson Township, Perry County, the Carter Oil Co. completed No. 6 on the J. H. Rarick farm and it will make a 5-bbl. per day pumper from the Clinton sand. This well is in the NE quarter of Section 11, Jackson Township, was drilled to a total depth of 3,006 feet and found 18 feet of sand. It is 500 feet east of the Perry Oil Co.'s first test on the Edward A. Griggs farm.

Good Showing in Fairfield County

In Rush Creek Township, Fairfield County, the Montana Oil & Gas Co. completed No. 7 on the Levi Kennedy farm and after a shot the well produced 60 bbls. of oil in the first 24 hours. This location is 600 feet northeast of the same company's third test on this farm. In Section 9, Rush Creek Township, Sturm and others have started a second test on the Mabel W. Turpie farm.

In Section 3, in the SW quarter of Washington Township, Hocking County, the Gordon Oil Co. completed its initial test on the Robert E. Thrush farm and after a shot it is showing for a 15-bbl. per day pumper. Near New Lexington, in the SE quarter of Section 5, Pike Township, Perry County, the Calkins Oil & Gas Co. completed its third test on the W. R. Calkins farm and after a shot it will make a 3-bbl. per day pumper from the Berea sand. In Section 2, Clay Township, Knox County, Snyder & Carson completed No. 16 on the W. E. Bebout farm and have a 3-bbl. per day pumper in the Berea sand.

Dry Holes

In Section 7, Springfield Township, Muskingum County, the Mid-East Oil Co. completed its initial test on the Scharder George farm through the Clinton sand and it is a dry hole. In Liberty Township, Washington County, Beeson Dailey and others completed No. 4 on the James R. Heslop farm, Section 19, to the second Cow Run sand at a depth of 1,225 feet and that formation is dry. In Section 13, Clay Township, Knox County, A. H. Heisey & Co. completed their first test on the Marion Wolfe farm through the Berea sand and it is showing for a very light gas well. In Section 6, Washington Township, Monroe County, W. S. Lauffer and others completed their second test on the Edward Cline farm to the Injun sand and it will not make better than a 1-bbl. pumper.

Field Notes

The Newhart Drilling Co. has started the drill at an initial test on the E. Gutheil farm in Section 5, Bethel Township, Monroe County. In the same township and county, the DuRose Oil & Gas Co. is drilling its first test on the C. W. Camden farm in Section 32. In Section L, Jackson Township, Knox County, W. M. Cline started a second test on the F. C. Veatch farm and will drill to Clinton lime. This location is 700 feet south of his first test on this farm. In Section 13, Hanover Township, Licking County, Edward H. Everett Co. is drilling its first test on the B. H. McKee farm. In Section 23, Perry Township, same county, the Carter Oil Co. is drilling its second test on the John Somerville farm. In the same county, in Section 2, Franklin Township, Ralph Brothers, Inc., has started its initial test on the C. T. Bricker farm. In Section 13, Bowling Green Township, Licking County, the Ohio Glenn Oil Co. is moving in a rig for its second test on the George M. Bowers farm. Location will be made 600 feet north of same company's first test well on this farm.

Pennsylvania

The local fields in southwest Pennsylvania show very few completions and the best well reported will not exceed a 15-bbl. per day pumper. In North Strabane Township, Washington County, the New Oil & Gas Co. has drilled its initial test on the R. G. Lutton farm to a depth of 2,596 feet and found oil in the fourth sand. It will make a 15-bbl. per day pumper in that formation.

In the Hookstown Field, in Greene Township, Beaver County, P. R. Laughlin is through the sand in his initial test on the James Laughlin farm and it is a duster so far. On Bissetts Run, in Springhill Township, Greene County, Walter Null and others completed their first test drilled on the David Null farm to the salt sand and it will make a small gas well in that formation.

One mile west of Nineveh, in Norris Township, Greene County, Charles T. Sutton and others completed their second test drilled on the Lydia Smith farm showing for a small gas well in the Gordon and Stray sands.

There is very little new work being done in the local fields. Greene County probably has the most development under way due to the operations of the large gas companies. Allegheny County comes next but nothing in any of the southwest counties points to a very busy month in the oil fields.

News of Mexican Fields

By George Blardone

TAMPICO, Mex., Aug. 11.—La Corona Petroleum Co.'s No. 114, Lot 4, Cacalilao sector of the Panuco Field is the best completion of the past week. It is rated good for 6,000 bbls. at 1,750 feet. Mexican Gulf Oil Co.'s No. 21, Lot 1, same sector, has stopped the drill at 1,900 feet, being satisfied with 100 bbls. at that depth. Mexican Sinclair Petroleum Corp. No. 65, Lot 3, is showing 1,000 bbls. as the drill descends at 1,430 feet, which marks it a good well now, although it is going deeper for more pay. Against this new production can be listed some nine failures for the Panuco Pool

In the South Fields, Mexican Gulf Oil Co., back in the old Tepetate, has an 800-bbl. well in No 5, Lot 8, which was completed at a subsea level depth of 2,041 feet. International Petroleum Co.'s No. 44 Toteco is also a completion at a subsea level depth of 1,220 feet, rated good for 200 bbls. South of the Tuxpam River, Penn Mex Fuel Co.'s No. 8 Jardin drilled into salt water at 2,219 feet.

To revert to the northern fields, the miscellaneous completions during the week were three, all of them failures; while one deep test, which is showing considerable salt water (at Los Esteros) will be drilled deeper for geological purposes.

Drilling operations in the Cacalilao sector of the Panuco Fields continues to

(Continued on Page 108)

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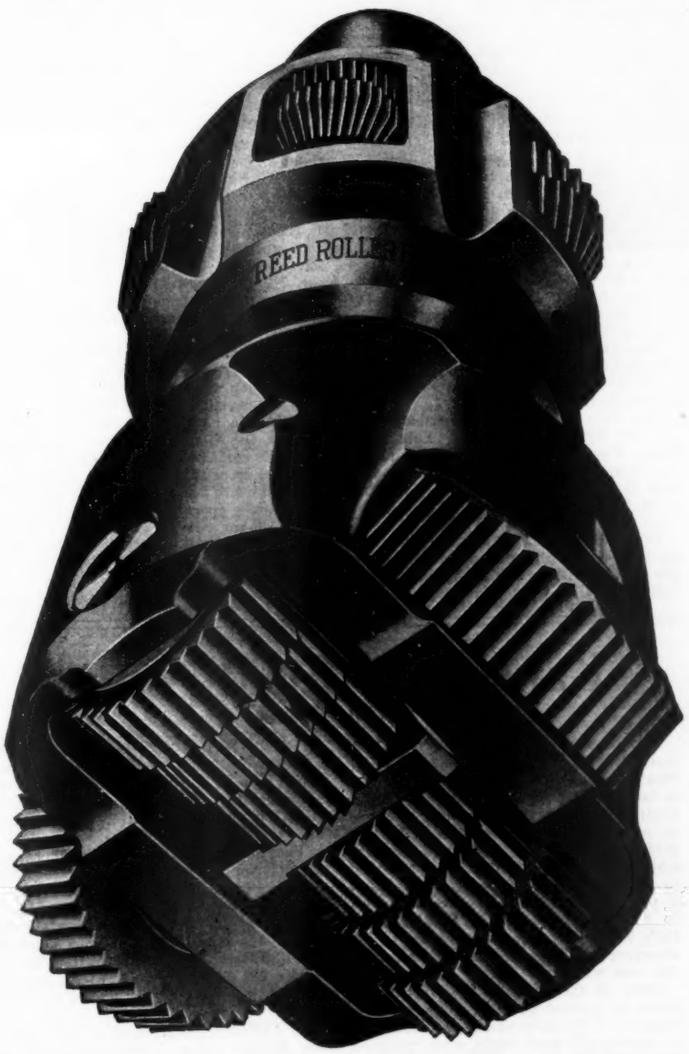

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OKLAHOMA FIELDS

(Continued from Page 38)

No. 2, SW cor. SE SW NE, Section 18-27-6, is drilling at 450 feet; same company's No. 6, SE cor. NE SW NE, Section 14-27-5, drilling at 300 feet; No. 7, SE cor. NW SW NW, Section 14-27-5, a rig; No. 8, SE cor. NE SE NW, Section 14-27-5, drilling at 300 feet. No. 14, NW cor. NE NW NE, Section 14-27-5, a rig; No. 5, SW cor. NW SW NE, Section 18-27-5, a rig; No. 6, SW cor. NE SW NE, Section 18-27-5, a rig; No. 7, SE cor. NW SE NE, Section 18-27-5, a rig; George S. Bole's No. 26 Gaston, SE cor. NW SE NW, Section 4-27-5, rig building; Phillips Petroleum Co.'s No. 16, NE cor. SE, Section 11-27-5, drilling below 300 feet.

The Tuloma Oil Co. is drilling below 900 feet in No. 8, SW cor. NW SW SE, Section 10-27-10, Osage County.

In the Pawhuska district, the Mid-Kansas Oil & Gas Co.'s No. 2, SW cor. SE SW SW, Section 21-25-8, was drilling below 700 feet; E. B. Lawson's No. 9, NW cor. NE NW NW, Section 28-25-8, was drilling below 300 feet; and No. 10, NW cor. SW NW NW, Section 28, drilling below 300 feet; The Texas Co.'s No. 8, NE cor. SE NE NE, Section 29-25-8, drilling at 1,800 feet; and has a rig up for No. 9, NE cor. NW NE NE, Section 29.

The Beacon Oil Co.'s No. 2, CWL SE, Section 27-29-11, Osage County, started at 127 bbls. a day from Peru pay sand at 956-87 feet, shot with 108 quarts. The Owen Osage Oil Co. abandoned a failure in No. 299, NW cor. SW NE, Section 28-28-11, dry at 1,848 feet. The Laurel Oil & Gas Co.'s No. 3 Mehojah, eastern Kay County, C SW NE SW, Section 4-27-5, which started at 144 bbls. naturally is down to 60 bbls. with some water from sand at 2,893-2,913 feet. There was only 2 feet of pay. Skelly Oil Co.'s No. 1 Clubb, CNL NE NW SW, Section 9-27-5, is good for 80 bbls. at 2,944-59 feet. The Phillips Petroleum Co.'s No. 9, NW cor. NW NW SW, Section 11-27-5, made 350 bbls. the first 24 hours after an 180-quart shot at 2,944-2,992 feet.

A. M. Landon in his No. 1, SW cor. NW, Section 30-27-12, had a show of oil at 330-55 feet, show of gas at 770-85 feet and a broken sand at 1,495-1,520 feet, and was fishing for tools.

The Texas Co.'s No. 6, NE cor. Section 29-25-8, which got the Wilcox pay at 2,666-70 feet and flowed 90 bbls. the first hour and increased this to 125 bbls. an hour, was shut in to 90 bbls. an hour. The Indian Territory Illuminating Oil Co. and Waite Phillips Co.'s No. 1, NE cor. NW, Section 14-24-8, was dry and abandoned at 2,727 feet. Wormser & McCune have abandoned No. 3, NW cor. SW NW SW, Section 15-24-8, at 589 feet. The New England Oil Co.'s No. 10, C W half SE SW, Section 19-25-9, made a 60-bbl. well naturally from sand at 2,249-60 feet. The Test Log Oil Co.'s No. 1, SW cor. NW SW NE, Section 31-25-9, is a 3,000,000-foot gasser at 2,304-26 feet, a break in the line. Prime and others have a 2,500,000-foot gasser in No. 1, SE cor. Section 6-25-11, in a break in the lime at 1,901-17 feet. This test got dry Peru sand at 1,345-65 feet, Oswego at 1,446-79 feet; Bartlesville at 1,765-86 feet and the top of the Mississippi lime at 1,901 feet.

The Marland Refining Co.'s No. 12, C NW NW SE, Section 20-23-8, made 974 bbls. the first day from the second break in the lime at 2,630-60 feet and later was swabbing some water with the oil. The same company's No. 14, SE cor. NE SE SE, Section 20-23-8, had 1,500 feet of oil in the hole from sand at 2,664-65 feet, which was also showing water. It was shut down for orders. The same company's No. 4, NE cor. NE NW NE, Section 29-23-8, made 15 bbls. naturally at 2,903-13 feet. C. B. Peters found a stray sand at 575-91 feet and a 10-bbl. production after a small shot in No. 1, SW cor. NW SW SE, Section 4-23-9. It will be deepened. The U. S. Oil Co.'s No. 1, NW cor. Section 22-22-9, is a 15-bbl. pumper from Bartlesville sand at 2,187-2,205 feet.

The Sand Springs Home's No. 81, SE cor. Section 13-21-9, was dry and abandoned at 2,760 feet and its No. 79, CNL SW, Section 12-20-10, was dry and abandoned at 2,623 feet. The Peer Oil Co. and Lorraine Petroleum Co.'s No. 1, SW cor. SE SW SW, Section 1-20-11, was dry and abandoned at 2,354 feet. The Gray Oil Co.'s No. 4, NW cor. SW NW NE, Section 28-20-11, was flowing 150 bbls. of oil and 150 bbls. of water from Wilcox sand at 2,313-27 feet, total depth 2,370 feet. The water will be shut off.

The Mutual Oil Co. has tools in for No. 1, CNL SW, Section 34-23-8; Osage Arrow Oil Co.'s No. 7, SE cor. SW SE SE, Section 14-22-10, drilling at 300 feet.

Owen Osage Oil & Gas Co.'s No. 300, SW cor. SE SW, Section 5-22-11, drilling at 800 feet; Indian Territory Illuminating Oil Co.'s No. 1, SW cor. NW NW, Section 1-21-8, drilling at 1,540 feet; Breene and others' No. 1-A, SW cor. SE SW SW, Section 14-21-10, a rig; Chocben Oil Co.'s No. 1, NW cor. NE, Section 15-21-10, drilling at 300 feet; Barnsdall Oil Co.'s No. 25, NE cor. SW NE NE, Section 13-21-12, rigged up; same company's No. 10, NW cor. NE SE SE, Section 5-20-12, drilling at 300 feet.

In the Burbank Field the Phillips Petroleum Co. and Skelly Oil Co.'s No. 8, SE cor. NE SE NE, Section 26-27-5, made 150 bbls. a day after a shot at 2,963-3,003 feet. No. 11, C SW NE NE, Section 26-27-5, 100 bbls., following a shot at 3,014-34 feet; No. 12, NE cor. SE NE NE, Section 26-27-5, shot in sand at 3,001-37 feet, 75 bbls.

Creek County

The Nowata Oil & Refining Co.'s No. 1-A McNac, NW cor. NE SW, Section 16-16-9, is drilling at 400 feet.

The Aztec Petroleum Co. was drilling below 400 feet in No. 1, SW cor. SE SE, Section 14-17-8; Olean Petroleum Co.'s No. 2-A Willis, NE cor. SE NE NE, Section 6-16-8, spudded in; Wolfe Oil Co.'s No. 1 Larney, SE cor. SW NE, Section 33-16-8, was fishing at 200 feet.

The Cosden Oil & Gas Co.'s No. 3 School Land, NW cor. SW NW, Section 16-20-7, Pawnee County, was drilling at 300 feet.

The Garr Oil Co.'s No. 2 Armour, NE cor. SE SE, Section 8-19-5, Yale Pool, Payne County, was shot with 20 quarts and responded with a 300-bbl. production the following 24 hours. The sand is at 2,950-61 feet.

Stroud's Big Wells

In the Stroud Field, which lies on the border of Lincoln and Creek Counties, the Atlas Drilling Co. is drilling at 300 feet in No. 1, Lot 15, Block 8, Key West, SE cor. SW NE NW, Section 12-14-6; Roxana Petroleum Corp.'s No. 1 Brace, NE cor. NW NE SW, Section 12-14-6, which started at 1,097 bbls. from sand at 4,114-40 feet, is now making 436 bbls. a day. The Union Petroleum & Supply Co.'s No. 3 Townsite, NE cor. NW SE NW, Section 12-14-6, is a 600-bbl. well at 4,115-81 feet. Willis and others' No. 2, Lot 13, Block 10, SW cor. NW SE NW, Section 12-14-6, got sand at 4,104 feet and was flowing 200 bbls. naturally while drilling at 4,148 feet. The Roxana Petroleum Corp.'s No. 1, SW cor. Section 6-14-7, which started at 1,286 bbls. from sand at 4,124-4,177 feet, is down to 368 bbls. a day. The Transcontinental Oil Co.'s No. 1, SE cor. SW SE SW, Section 6-14-7, was flowing 360 bbls. from sand at 4,122 feet, drilled to 4,161 feet; Amerada Petroleum Corp.'s No. 6 Lewis, C NW NW SW, Section 7-14-7, which started at 1,364 bbls. from sand at 4,089-4,181 feet, is down to 841 bbls. Waite Phillips Co.'s No. 2 Jack, NW cor. SW NW NW, Section 7-14-7, which had an initial production of 2,039 bbls. from sand at 4,088-4,154 feet, is now flowing 760 bbls. a day; same company's No. 3 Jack, SE cor. NW NW, Section 7-14-7, sand at 4,106-45 feet, initial production 2,226 bbls., now producing 1,077 bbls.; Wood & Farren's No. 2 Jack, NW cor. SW SW NW, Section 7-14-7, sand at 4,100-70 feet, initial production 2,283 bbls., now producing 1,000 bbls.

Mound's Town Lot Work

In the Mounds town lot development, in southern Tulsa County, S. W. Anthony's No. 1, Lot 18, Block 24, NW cor. NE SW SE, Section 8-16-12, started at 300 bbls. a day from sand at 1,998-2,050 feet. Dr. Boso Drilling Co.'s No. 1, Lot 1, Block 37, SE cor. SW SE, Section 8, was an 80-bbl. well at 2,374-81 feet; Riverland Oil Co.'s No. 5 Marshall, SW cor. NE SW, Section 8, started at 150 bbls. naturally from sand at 2,368-80 feet and No. 7 Marshall, NW cor. SW NE SE, Section 8, was good for 30 bbls. at 2,394-2,339 feet; J. J. Schock's No. 1, Lot 10, Block 23, NE cor. NW SW SE, Section 8 produced 400 bbls. naturally from sand at 2,055-92 feet, and also had a sand at 1,962-2,092 feet; Suppes Oil Co.'s No. 2, Lot 4, Block 25, NE cor. SW SE, Section 8, shot with 10 quarts in sand at 2,007-2,081 feet and made 175 bbls. the first 24 hours. The same operator's No. 1, Lot 22, Block 13, got sand at 2,384-94 feet, which was shot with 10 quarts, a 100-bbl. production showing in the following 24 hours.

New work recently starting in that development included the following: S. W. Anthony's No. 2, Lot 13, Block 24, NW cor. NE SW SE, Section 8-16-12; Tony Bowen and others' No. 1, Lot 2, Block 35, C W half SW SE, Section 8; Calvin & Belt's No. 1, Lot 4, Block 36, NE cor. SE SW SE, Section 8, drilling below 800 feet; Daily Brothers and Riverland Co.'s No. 1, Lot 1, Block 28, SE cor. NE SW SE, Section 8; L. P. Gowland's No. 1, Lot 3, Block 26, C N half, SW SE, Section 8, drilling below 700 feet; Sibold and others' No. 1, Lot 4, Block 39, NW cor. SW SW SE, Section 8; Riverland Oil Co.'s No. 8 Marshall, NW cor. SE SE, Section 8; No. 9, CWL E half SE, Section 8-16-12; No. 10, NW cor. SW SE SE, Section 8, all rigs; Wert & Hancock's No. 1, Lot 5, Block 23, C W half SW SE, Section 8, drilling at 500 feet; Minnehoma Oil Co.'s No. 1-A Penoka, NW cor. NE SW, Section 9-16-12, rig; Thompson & Black's No. 1 Muscogee, NW cor. SE NE, Section 9, drilling below 1,200 feet; Fox & Ireland's No. 3 Maxwell, NE cor. NW NE, Section 17-16-12, rig. Bradstreet's No. 1, Lot 21, Block 7, SW cor. SE SW NW, Section 8-16-12, drilling below 1,500 feet; Noble Oil & Gas Co.'s No. 1, Lot 14, Block 25, C NE SW SE, Section 8-16-12, drilling at 300 feet; same company's No. 2, Lot 4, Block 24, C NE NW NW, Section 8-16-12, drilling below 1,400 feet.

Tulsa County

The Sand Springs Home's No. 7 Bruner, C W half SW SW, Section 6-19-12, Tulsa County, was drilling at 900 feet; C. M. Terwilliger's No. 3-A Harrison, NW cor. SW NW, Section 8-19-12, drilling at 1,400 feet; Echo Oil Co.'s No. 8-A Grayson, SW cor. NE NE, Section 5-19-12, drilling below 1,200 feet.

In the Bird Creek Field, Tulsa County, The Echo Oil Co.'s No. 1-A Chandler, SW cor. SE NW, Section 7-20-13, was dry and abandoned at 1,918 feet. The Wolfe Brothers Drilling Co.'s No. 1-W S. Wilson, NW cor. NE SE SW, Section 6-20-13, was dry and abandoned at 1,905 feet. J. R. Hadley was drilling below 1,535 feet in No. 1-A Collins, CNL NE NE, Section 2-21-13. The Echo Oil Co. has a rig up for No. 2 Burrell, CSL NE SW, Section 7-20-13.

The Pennok Oil Co.'s No. 1-W Yargee, C NW, Section 28-19-12 plugged back to 1,305-55 feet where it had a 2,000,000-foot gas production. It was a hole full of water at 2,340-45 feet.

The Brooks Drilling Co. was drilling at 300 feet in No. 1-A Hawkins, SW cor. NW SW, Section 29-19-12.

Posey Short and others' No. 3 Jones, C SE SW, Section 5-18-13, was dry and abandoned at 2,305 feet. Pouder & Pomeroy had a machine in for No. 6 Bruner, SE cor. NE SE SW, Section 9-18-13.

T. B. Slick and others' No. 1 Berryhill, SE cor. NE SW, Section 1-17-14, looked good for 100 bbls. from sand at 1,282 feet drilled in 4 feet; Wade and others' No. 1-A Sapulpa, NW cor. SE, Section 3-17-11, made a 7,000,000-foot gasser at 1,811-14 feet.

In Wagoner County Young and others are drilling below 735 feet in No. 1 Birney, CWL NE NW, Section 12-17-16.

Shaw and others abandoned as dry at 820 feet their No. 1 Childers, C NE NW, Section 23-17-16.

In Muskogee County the Hillside Oil & Gas Co.'s No. 1 McDaniels, CSL SE SW, Section 33-16-15, was drilling below 900 feet.

Southern Fields

The Levant Oil Co. was drilling below 1,100 feet in No. 1 Brewer, C NW SW SW, Section 27-1s-3w, Carter County. Noble & Gault were rigging up rotary on No. 1 Champion, C SW SE NE, Section 28-1s-3w. The Tidal Osage Oil Co. had a rig up for No. 2 Parsons, C NE SW SE, Section 28-1s-3w. The Magnolia Petroleum Co.'s No. 1 Lahman, C NW SW NW, Section 28-1s-3w, was drilling an old well deeper at 2,224 feet.

The Magnolia Petroleum Co.'s No. 1 Johnson, C SE NE, Section 32-1s-3w, got sand at 2,659-65 feet and a 35-bbl. production; same company's No. 1 Lahman, C SE NE SE, Section 23-2s-3w,

(Continued on Page 90)

Kansas Oil Field News

By C. D. Lockwood

The three wells completed in the Coleman Pool in Section 28 and 33-32-14, Montgomery County, Kansas, are all said to be making over 1,200 bbls. a day. A lively leasing campaign which promises to cover much of the acreage in the old fields of Montgomery and much territory which was not in former days regarded as oil bearing has been started. Two or three wells are expected in this week in the Coleman Pool. The Red Bank Oil Co.'s No. 1 Love, the third offset to the discovery well, was due for the sand when this was written.

Most of the work being done in the State at present centers in Cowley and Greenwood Counties and in the past week a number of good wells were reported from both counties.

Anderson Brothers have a dry hole at 2,340 feet in No. 1 Craig, C SW SE, Section 16-29-9, Elk County. It is abandoned. Baxter & Mitchell's No. 3 Denton, C NE SW, Section 4-30-9, had 7,000,000 feet of gas from sand at 1,603-14 feet. Richie & Moore's No. 1 Hyde, NE cor. SW, Section 17-30-9, is drilling below 1,600 feet; and the same operators' No. 1 Kyser, SW cor. NW SE, Section 19-30-9 was spudded in and shut down.

In Woodson County the Oklahoma Producing & Refining Co.'s No. 8 Stevenson, NW cor. Section 5-24-14, had sand at 1,700-26 feet and a 60-quart shot resulted in a 25-bbl. initial production. The Mateland Oil Co.'s No. 1 Ingersoll, SW cor. NW, Section 28-26-13, a location, has been abandoned.

The Mid-State Oil Co. abandoned as dry its No. 1 Cunningham, NW cor. NE SE, Section 4-32-11, Chautauqua County, at 2,303 feet. Page & McKay's No. 1 Wiggam, SW cor. SE SE, Section 18-32-10, is a hole full of oil from sand at 1,624-36 feet and shut down. T. B. Slick's No. 1 Schroeder, NW cor. Section 23-34-8, was dry and abandoned at 3,125 feet.

In Coffey County, Manion and others are drilling below 1,100 feet in No. 1 Steel, SW cor. Section 11-23-14 and the Oklahoma Producing & Refining Co. is drilling No. 1 Pilcher, SE cor. NW, Section 15-23-14, below 900 feet.

Cowley Completions

In Cowley County, Titus and others' No. 2 Crouch, SE cor. Section 31-30-6, was estimated at 30 bbls. from sand at 2,865-97 feet.

Martin & Wilson's No. 3 Eastman, NW cor. SW, Section 5-31-6, got sand at 2,808-40 feet, and after a 10-quart shot it swabbed 50 bbls. in 24 hours. Harvey

(Continued on Page 115)

Notice Who They Are For

The above photograph of the Cooper main assembly floor was taken on July 30. It shows gas engines and compressors for practically every oil and gas district in the country.

The four 485 H.P. gas engines are the last of an order for seven from the United Fuel Gas Co. for West Virginia. The compressors on the railway car and one of the 60 K.W. electric generator units in the background are for the same company. Among the smaller engines there are four 60 K.W. electric generator units for Magnolia Gas Co. This same order calls for ten of the 485 H.P. engines for the two big stations now being built in Louisiana and Texas.

The photograph also shows two 160 H.P. engines for The Peoples Natural Gas Co. of Pittsburgh, two 160 H.P. engines for the Humble Oil & Refining Co. in Texas, four 160 H.P. engines for Missouri Power & Light Co. in Oklahoma, two 160 H.P. engines for the Central Kentucky Natural Gas Co. in Kentucky, and two 160 H.P. engines for the Midway Gas Co. in California. Just out of sight, but coming onto the floor, are parts for twelve compressor cylinders for the Midwest Refining Co. in Wyoming.

A recent visitor's conclusion was, Cooper workmen build greater satisfaction into Cooper equipment, and the trade appreciates it.

The C&G COOPER CO.
MT. VERNON, OHIO
504 Kennedy Building, Tulsa, Oklahoma
Since 1833 Engineers and Builders

The Sand Springs Home's No. 81, SE

ducing & Refining Co.'s No. 8 Stevenson.

(Continued on Page 115)

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North-Central Texas Field

By Dan F. Dugan

Mid-Kansas Oil & Gas Co.'s No. 2-A Love, Stephens County, best initial completion in south district, showing 300 bbls. Humble Oil & Refining Co.'s No. 2 Orton, Archer County, best in north, flowing 290 bbls. Callahan and Brown Counties most active in development, centering around Cross Plains.

FORT WORTH, Tex., Aug. 18.—Crude oil production in the North Central Texas fields reported an increase of 4,390 bbls. daily for the past seven days, largely from Reagan County, with completion of the Big Lake Oil Co.'s No. 11 University well which increased the production in that territory around 3,000 bbls. a day. Electra increased 800 bbls. due to late completions, the total daily production for the field amounting to 127,775 bbls. against 123,385 bbls. for the preceding seven-day period.

A survey of activities in the several districts shows a general decline in most departments. Drilling is gradually getting less, locations are fewer, completions are about 60 per cent of what they were around June 1. A total of 42 completions was reported from the entire field during the past week; of that number three were oil producers, 18 dry holes and one gas well. The south section completed 14 tests, 11 produced oil, 2 were dry holes and 1 gas well. North district made a better showing; 28 tests were finished, 12 were oil producers, 16 disappointments. The largest initial producer in the south district was the Mid-Kansas Oil & Gas Co.'s No. 2-A Love, in Stephens County, which is showing 300 bbls. daily at 3,295 feet. In the north territory the best initial well was the Humble Oil & Refining Co.'s No. 2 Orton in Archer County, which flowed 290 bbls. a day at 1,789 feet.

In Mitchell County, the California Co., Ltd. completed four wells, all small producers, ranging from 35 to 150 bbls. a day at 3,030 feet.

Cross Plains Activity

Probably the most active development section of the south field is in Callahan and Brown Counties and in the vicinity of the town of Cross Plains. This territory produces from a semi-shallow depth sand and costs but little to drill to the producing level which in most tests is around 1,230 feet. Some 12 strings of tools are working in the territory, two being wildcat tests. A summary of work in that field shows three wells about to be completed with nine drilling at different depths.

Almost a half mile extension to present producing territory may be added by Gilman & Gump's No. 1 Moore, an east extension to the producing field. This well has found the top of the pay at 1,228 feet, with a good showing of gas, and is standing with several hundred feet of oil in the hole and the sand barely touched. Flow lines are now being laid and storage erected preparatory to completing.

Storage is being erected at Moore & Wilson's No. 1 Chambers where the top of the pay was found at 1,208 feet, with a show of fluid in the hole. This well is about a half mile north of the south extension discovery well and almost between the well and proven east production.

Farther to the north and much nearer to the east extension production the Simms Oil Co.'s No. 1 Gaines is showing for a well at 2,297 feet though not completed. This well is finding the pay somewhat low for this territory and has led many to doubt its outcome, but the showing of fluid in the hole seems to indicate it may make a commercial well.

In northeast Coleman County, Slick and others' No. 1 Johnson is drilling at 3,300 feet, having failed to land production at any of the higher levels, and will likely drill to 3,500 feet.

Reagan County is rather quiet. Interest in that territory right now is centered on the Texon Land & Development Co.'s No. 1 University which is flowing by heads every two hours making around 25 bbls. each flow, about 300 bbls. daily at 3,024 feet.

Archer County Slackening

Development is slowing up in all sections of this county; a small number of producers were completed this past week. There was a slump in the number of new locations reported. The operators seem to be beginning to realize that at the present price for crude the drilling of wildcat tests is not a popular outdoor sport. The largest completion for the week in this field was the Humble Oil & Refining Co.'s No. 2 Orton which showed initial 290 bbls. daily at 1,788 feet. Probably the largest producing semi-completion is the Texhoma Oil & Refining Co. and others' No. 5 K. & K., which swabbed 330 bbls. in 24 hours at 1,790 feet. Other near completions of interest are the Bart Magee No. 1 Scruggs, drilled into the sand at 1,339 feet. The well is reported to be good for 75 to 100 bbls. The Shamrock Oil Co.'s No. 4-D Richardson on the north end of the lease, made 188 bbls. at 1,330 feet the first 24 hours. Wilmot Farm Oil Co.'s No. 6 Wilmot is showing daily around 100 bbls. from a sand at 1,590 to 1,600 feet. The Magnolia Petroleum Co.'s No. 1 Parrish, in the northeast corner of the northwest quarter of Section 26, H. T. C. R. R. survey, at 1,595 feet looks good for a 100-bbl. pumper.

The Comac Pool may add two more producers in the next few days as the Magnolia Petroleum Co.'s No. 3 Llewellyn is being equipped to be placed on the pump; its present showing indicates a 100-bbl. producer at 1,378 feet. The Stanley McGregor and others No. 4 Robertson is being placed on the pump with 800 feet of oil in the hole.

The Panhandle Oil & Refining Co.'s Larkin & White No. 1 Conger, about 12 miles southeast of the town of Throckmorton, in Throckmorton County, was placed on the swab and in a few hours produced in the neighborhood of 35 bbls. After being swabbed dry and allowed to set over night, the hole showed 250 feet of oil. The sand, encountered at 1,448 feet, was drilled to 1,454 feet. A test of the oil was made by the Panhandle Company and showed 35 per cent gasoline, 18 per cent kerosene and 39 gravity, green in color.

The Bonds Drilling Co. of Wichita Falls, has made a contract with Juston & Hamilton to drill a test in Throckmorton County, in the southeast quarter of Section 696, T. E. L. Survey. The material for the derrick and machinery was being moved.

Wichita County Decline

Only small completions were reported from this district. There was a decline in drilling activity and but few new locations were made. In some sections there is getting to be a shortage of water for field work, though this obstacle is of common occurrence during August in this district.

The largest completion for the week was the Barnett Ranch Oil Co.'s No. 4 Burnett, which pumped 120 bbls. in 24 hours at 1,815 feet.

In the district southwest of Iowa Park a number of tests are showing for producers, among them Gardner and others' No. 2 Peeler, and the Bass, Dillard & Bower No. 4 Peeler. The former, at 1,652 feet has been placed on the pump and is producing 175 bbls. a day and the latter, due west of the Gardner and others' is making 250 bbls. from the 1,772-foot depth.

Northwest of the Bower No. 4, the John O'Donohoo No. 5 Maer, while drilling to the 1,500-foot pay, encountered a sand at 890 feet; it was put on the pump and is making 40 bbls. per day.

The United Central Oil Corp.'s No. 10 McCarty, in the Beaver Creek district, is being placed on the pump with a daily output of 120 bbls. estimated from a sand at 1,683 to 1,686 feet.

Drilling 20 feet of rich sand, the top of which was picked up at 1,302 feet, Pace and others' No. 2 Robertson, about 7 miles northwest of Wichita Falls, on the Burkburnett highway, was placed on the swab with an estimated production of between 100 and 150 bbls. per day.

Parker Brothers semi-compieted No. 1 Love in the W. S. Kinnard survey, with an estimated production of 40 bbls. from sand at 1,804 feet.

The completion of this well, which is almost surrounded by dry holes, will be the means of extending the proven area of the Hill & Roberts Pool approximately 2 miles northeast.

Stephens County

Completions: The Mid-Kansas Oil & Gas Co.'s No. 2-A Love, 300 bbls. at 3,295 feet; Pitzer and others' No. 1 Stoker, 8,000,000 feet of gas at 4,050 feet; Sun Oil Co.'s No. 11-A Rosenquest, 15 bbls. at 1,800 feet; Texas Fidelity Oil Corp.'s No. 1 Cooke, dry at 2,100 feet.

Drilling: Brown and others' No. 1 Hudspeth, drilling in lime at 3,300 feet; Critten and others' No. 6 Cobb, drilling at 1,440 feet; Liner and others' No. 2 Brown, drilling in blue shale at 1,655 feet; Mid-Kansas Oil & Gas Co.'s No. 3-A Lowe, straightening crooked hole at 950 feet; No. 4-A Lowe, drilling at 2,345 feet; No. 3 Richardson, drilling by casing at 3,185 feet; Pierce and others' No. 1 Crudington, drilling at 3,155 feet; Prairie Oil & Gas Co.'s No. 15 Atkins, drilling at 3,265 feet; No. 1 Caldwell, drilling in soft rock at 2,455 feet. Raney and others' No. 2 Walker & Caldwell, fishing for casing at 3,840 feet; Rochelle and others' No. 2-A Sweeney, spudding the second hole; No. 3-A Sweeney, drilling at 2,800 feet; Swasey and others' No. 2 Conger, drilling in hard rock at 2,410 feet; Swensondale Oil Co.'s No. 1 Echols, drilling at 450 feet; Texas Pacific Coal & Oil Co.'s No. 5 Rogers, set 5-inch casing and will drill deeper at 4,175 feet; Weekley Petroleum Co.'s No. 1 Cobb, underreaming 8-inch casing at 2,300 feet; Brown and others' No. 4 Brown, drilling in lime at 3,455 feet; Christie and others' No. 1 Gardenshire, drilling at 1,450 feet; Ice & Co.'s No. 1 McCleskey, drilling at 850 feet; Lewis Oil Co.'s No. 2 Stoker, trying to pull 5-inch casing at 3,860 feet.

Little and others' No. 2 Drake, drilling in lime at 3,650 feet; Magnolia Petroleum Co.'s No. 9 Brown, drilling by tools at 3,125 feet; No. 2 Brown, cementing 5-inch casing at 3,845 feet; No. 5 Brown, fishing for casing at 3,821 feet; No. 6 Brown, drilling by tools at 3,215 feet; No. 1 Taylor, drilling in shale at 2,310 feet; Prairie Oil & Gas Co.'s No. 1 Stoker, fishing for casing at 3,875 feet; Republic Producing Co.'s No. 4 Jones, drilling in salt rock at 2,830 feet; Seaboard Oil & Gas Co.'s No. 1 McClesskey, drilling in hard lime at 3,480 feet; Sinclair Oil & Gas Co.'s No. 9 Henderson, trying to plug off water at 3,194 feet; Snowden and others' No. 1 Jones, running 5-inch casing at 3,835 feet; State's Oil Corp.'s No. 1 Sikes, trying to case off gas at 3,365 feet; Swensondale Oil Co.'s No. 1 Houston, has no show of oil and drilling in black lime at 3,325 feet; The Texas Co.'s No. 8 Heathley, drilling at 2,900 feet; Texas-Pacific Coal & Oil Co.'s No. 1 Hand, fishing for casing at 2,135 feet; No. 1-B Winston, showing 5,000,000 feet of gas and underreaming 6-inch casing at 2,216 feet; Thompson and others' No. 4 Williams, showing 200 bbls. a day production and drilling at 2,112 feet; Triplehorn and others' No. 1 Adams, drilling at 1,075 feet.

Eastland County

Completions: Barkley and others' No. 5 Wright, 20 bbls. at 2,745 feet; Dixie Oil Co.'s No. 1 Waggoner, 20 bbls. at 3,685 feet; Continental Oil Co.'s No. 1 Sneed, 75 bbls. at 3,655 feet; Dougherty and others' No. 1 Johnson, dry at 3,805 feet.

Drilling: Arkansas Fuel Oil Co.'s No. 3 Lyerla, showing some gas and drilling at 1,435 feet; Brothers Oil Co.'s No. 1 Watson, drilling at 2,410 feet; Donnelly and others' No. 1 Fox, drilling in rock at 300 feet; Hamilton and others' No. 1 Fox, drilling in brown shale at 505 feet; Magnolia Petroleum Co.'s No. 4 Edison, drilling in boulders at 2,400 feet; McLester and others' No. 1 Gailey, showing oil and drilling in lime at 3,165 feet; Panhandle Oil & Refining Co.'s No. 6 Webb, fishing job at 600 feet; Parsons and others' No. 1 Moles, drilling in blue shale at 2,945 feet; Pennk Oil Co.'s No. 7 Parton, drilling in soft rock at 1,800 feet; Williamson and others' No. 3 Fox, set 6⅝-inch casing at 1,020 feet; Bebo and others' No. 1 Amis, fishing at 3,295 feet; Continental Oil Co.'s No. 2 Matthews, drilling at 1,435 feet; Grisham and others' No. 1 McDonald, fishing at 500 feet; McBride and others' No. 1 White, will pump and test oil bearing formation at 2,800 feet.

Rosenfield and others' No. 1 Burnett, fishing for bailer in the Caddo lime at 2,985 feet; The Texas Co.'s No. 1 Ramsey, drilling at 2,770 feet; Turner and others' No. 3 Jones, will reset 8-inch casing at 2,400 feet.

Burkburnett-Hirschi

Completions: Couch and others' No. 5 Donohoe, 40 lbs. at 1,335 feet; White and others' No. 1 Donohoe, 10 bbls. at 1,325 feet.

Drilling: Cochran and others' No. 1 Weeth, bailing and setting liner at 1,057 feet; Darr and others' No. 1 Jenne, drilling in shale at 1,020 feet; Griffith Production Co.'s No. 6 Roller, shut down on top of oil sand at 1,200 feet; Kuhn and others' No. 1 Meyers, bailing oil and water from sand at 1,360 feet; Magnolia Petroleum Co.'s No. 7 Treece, running 10-inch casing at 810 feet; No. 6 Beach, drilling in oil sand at 1,040 feet; Pace and others' No. 1 Donohoe, drilling at 450 feet; Texhoma Oil & Refining Co.'s No. 1-B Rexford, testing sand showing oil at 1,452 feet; Wilson and others' No. 1 Roberts, drilling at 1,050 feet.

Wichita and Wilbarger Counties

Completions: Burnett Ranch Oil Co.'s No. 4 Burnett, 120 bbls. at 1,815 feet; Carter and others' No. 2 Burnett, dry at 1,712 feet; Evangeline Petroleum Co.'s No. 1 Burnett, dry at 2,010 feet; Hammond and others' No. 1 Burnett, dry at 2,000 feet; United Central Oil Corp.'s No. 9 McCarty, 20 bbls. at 1,315 feet; Campbell and others' No. 1 Chilson, dry at 1,832 feet; Gulf Production Co.'s No. 1 Rhodes, dry at 1,900 feet; Petroleum

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Production Co.'s No. 5 Maer, 40 bbls. at 890 feet; Magnolia Petroleum Co.'s No. 45 Sumner, dry at 2,097 feet.

Drilling: Baldwin and others' No. 1 Fisher, fishing at 1,057 feet; Brewer and others' No. 1 Henson, drilling in rock at 360 feet; Burnett Ranch Oil Co.'s No. 7 Burnett, setting 6⅝-inch casing on top of oil sand at 1,580 feet; Camp Oil & Gas Co.'s No. 11-B Douglas, set and cemented 6⅝-inch casing at 1,937 feet; Culberson and others' No. 27 Jeff Waggoner, will test sand showing oil at 1,520 feet; Empire Gas & Fuel Co.'s No. 5 Pierce, swabbed 125 bbls. in 19 hours and not yet completed at 1,600 feet; Gordon Oil Co.'s No. 1 Burnett, reaming to set 6⅝-inch casing on top of broken sand at 1,809 feet; Gulf Production Co.'s No. 9 Collett, rerigging to pump and test oil sand at 1,665 feet; Humble Oil & Refining Co.'s No. 3-B Burnett, drilling at 760 feet; Jackson and others' No. 1 Blagg, drilled to 1,240 feet and shut down. Homer and others' No. 2 McCarty, swabbed 180 bbls. in 18 hours from sand at 1,695 feet; L. J. K. Oil Co.'s No. 1 Henson, drilling in soft rock at 930 feet; Magnolia Petroleum Co.'s No. 9 Douglas, running 8¼-inch casing at 740 feet; same company's No. 7 Jeff Waggoner, drilling at 940 feet; No. 37-A Waggoner, spraying oil and drilling at 1,677 feet; No. 38-A Waggoner, has 150 feet of oil in hole at 1,438 feet; Panhandle Oil & Refining Co.'s No. 6 McCarty, rigging to pump and test oil sand at 1,695 feet; Perkins and others' No. 8 Burnett, drilling at 1,810 feet; Ryan Petroleum Co.'s No. 23 Nance, drilling in shale at 1,200 feet; Rio Bravo Oil Co.'s No. 7-A Waggoner, swabbed 45 bbls. and not yet completed at 1,565 feet; United Central Oil Corp.'s No. 10 McCarty, set 6⅝-inch casing on top of oil sand at 1,685 feet; United Production Co.'s No. 5 Jennings, set 6⅝-inch casing at 1,802 feet; Dee and others' No. 1 Mangold, set 6⅝-inch casing and cemented at 1,830 feet; Gardner and others' No. 2 Peeler, swabbing 150 bbls. a day from sand at 1,670 feet; Parker Brothers' No. 1 Love, has 1,300 feet of fluid in hole at 1,806 feet; United Central Oil Corp.'s No. 1 Mrs. Murray, bailing and testing sand showing oil at 1,815 feet.

Wilbarger County—Drilling

Bridwell and others' No. 1 Dill is a derrick. Castleberry and others' No. 1 Bowers, fishing for tools at 520 feet; Dill Farm Oil Co.'s No. 1 Dill, drilling at 1,225 feet; Hart and others' No. 1 Smith drilling in shale at 965 feet; Herring and others' No. 1 Castleberry, drilling at 2,080 feet with no show of oil; Magnolia Petroleum Co.'s No. 64 H. & T. C., drilling at 810 feet; Noble Oil Co.'s No. 1 Waggoner, swedging casing at 1,730 feet; Pigg and others' No. 1 Davis, drilling in shale at 1,250 feet; Tex Wyoming Oil Co.'s No. 1 Ziperly, sidetracking tools at 2,159 feet; Thelma Wells' No. 1 Wharton, pumped 112 bbls. in 17 hours at 2,000 feet.

Archer County

Completions: Allen and others' No. 1 White, 200 bbls. at 1,604 feet; Archer Oil Corp.'s No. 2 Farmer, dry at 1,608 feet; Gulf Production Co.'s No. 3 Siegle, 40 bbls. at 1,576 feet; Humble Oil & Refining Co.'s No. 2 Orton, 290 bbls. at 1,789 feet; Jones and others' No. 2 Rutty, dry at 1,650 feet; Landreth Production Co.'s No. 1 Turbeville, dry at 1,800 feet; Natz Oil Co.'s No. 1 Zotz, dry at 1,665 feet; Parker and others' No. 1 Browning, 7 bbls. at 456 feet; Phillips and others' No. 1 Wilson, 170 bbls. at 1,532 feet; Shamrock Oil Co.'s No. 6-D Richardson, 100 bbls. at 1,344 feet; Tex-O-Kan Oil Co.'s No. 1 White, 20 bbls. at 1,404 feet.

Archer County Drilling

The Texas Co.'s No. 1 Andrews, is a rig. Archer Duke Oil Co.'s No. 1 Andrews, drilling in brown shale at 685 feet; Barnes and others' No. 2 Wilson, drilling at 1,600 feet; Benninger and others' No. 1 Perkins, drilling at 1,100 feet; Boller and others' No. 1 Falls County School Land, drilling at 1,215 feet; Camp Oil & Gas Co.'s No. 1 Falls County School Land, drilling at 1,645 feet; No. 3-B Wilson, drilling in shale at 1,575 feet; Carter and others' No. 1 Parrish, drilling at 1,300 feet; Chenault and others' No. 9 Richardson, rigging to pump and test oil sand at 1,360 feet; No. 10 Richardson, drilling at 460 feet; Clark and others' No. 5 Miller, drilling in boulders at 1,240 feet; Cooper and others' No. 1 Farmer, fishing for bit at 1,115 feet; Daniels and others' No. 1 Rankins, drilling in shale at 1,090 feet; Everette and others' No. 1 Miller, cementing 6⅝-inch casing at 1,630 feet; Griswold Oil Co.'s No. 3-D Wilson, drilling at 1,100 feet; Powell and others' No. 1 Brown, drilling in rock at 500 feet; Jefferies and others' No. 1 Parrish, fishing for 6⅝-inch casing at 1,670 feet; Knight & Hines' No. 1 Ragle, estimated 75-bbl. a day producer at 1,090 feet; Landreth Production Co.'s No. 1 Oil Investment Co. drilling in rock at 1,165 feet; Major Oil Co.'s No. 4 Turbeville, bailing and testing sand showing oil at 1,105 feet; McGregor and others' No. 3 Robertson, preparing to pump oil sand at 1,399 feet; No. 4 Robertson drilling in shale at 1,060 feet; McLain and others' No. 1 White, drilling at 650 feet; McPhail and others' No. 1 Wilson, drilling at 1,710 feet; Magnolia Petroleum Co.'s No. 1 Parrish, running 6⅝-inch casing on top of oil sand at 1,595 feet; No. 3 Robertson, drilling at 845 feet; Murchison and others' No. 3 Richardson, drilling at 1,230 feet; No. 4 Richardson, drilling at 905 feet; Norton and others' No. 3 Graham, drilling at 1,200 feet; R. & F. Oil Co.'s No. 2 Nichols, drilling in shale at 300 feet; Saunders and others' No. 1 Logan, flowing 75 bbls. of oil per day and not yet completed at 1,280 feet; Shamrock Oil Co.'s No. 9-B Richardson, drilling at 1,265 feet; No. 3-C Richardson, drilling in shale at 1,240 feet; No. 7-D Richardson, drilling in rock at 1,340 feet; No. 8-B Richardson, drilling at 860 feet; Sheppard and others' No. 1 Albright, repairing the boiler at 1,220 feet; Shipley and others' No. 1 Miller, setting 6⅝-inch casing at 1,626 feet; Staley and others' No. 2 Nichols, drilling in soft rock at 1,100 feet; Strawn and others' No. 1 Farmer, drilling in boulders at 1,650 feet; Sunshine State Oil & Refining Co.'s No. 1 Reilly, drilling in rock at 1,860 feet; Swastika Oil Co.'s No. 6-C Richardson, drilling at 1,370 feet; Texhoma Oil & Refining Co.'s No. 5 K. & K., swabbed 350 bbls. in 24 hours and will pump at 1,790 feet; No. 6 K. & K., drilling at 485 feet; Tucker and others' No. 5 Carter, drilling at 1,590 feet; Whitney and others' No. 1 Crebs, drilling in shale at 1,550 feet; Willis and others' No. 4 Jackson, drilling in shale at 1,340 feet; Wilmot Farm Oil Co.'s No. 6 Wilmot, preparing to pump and test sand showing oil at 600 feet; No. 7 Wilmot, drilling at 600 feet; Woodburn Oil Corp.'s No. 8-B Wilson, bailing and testing sand showing oil at 1,900 feet; No. 10 Wilson, preparing to pump an oil sand at 1,606 feet.

Young County

Completions: Brock and others' No. 1 McBrayer, dry at 550 feet; Eagle Creek Oil Co.'s No. 1 Cheeves, dry at 1,113 feet; Riley and others' No. 1 Buster, dry at 830 feet; States Oil Corp.'s No. 1 Fee, dry at 3,730 feet.

Drilling: Bashara and others' No. 1-A Graham, drilling in blue shale at 2,735 feet; Bryan and others' No. 1 Vernon, drilling in rock at 330 feet; Carter and others' No. 1 Rubinkoenig, drilling in lime at 4,260 feet; Dunn and others' No. 1 Johnson, drilling in shale at 1,800 feet; Foster and others' No. 2 Mahoney, fishing job at 3,886 feet; Humble Oil & Refining Co.'s No. 1 Graham, underreaming 6⅝-inch casing with a hole full of water from sand at 2,758 feet; Litchfield and others' No. 1 Baldwin, drilling at 400 feet; McLain and others' No. 1 Durham, drilling at 450 feet; McGarr and others' No. 1 Johnson, drilling in hard rock at 2,655 feet; No. 1 Scarborough, drilling at 1,825 feet; Miller and others' No. 1 Hume, drilling in shale at 2,515 feet; O'Neil and others' No. 1 Robertson, drilling at 1,260 feet; Reed and others' No. 1 Graham, drilling at 1,625 feet; Russell and others' No. 2 Benson, drilling at 890 feet; Seaboard Oil & Gas Co.'s No. 1 Stoffers, drilling at 1,150 feet; Stovall and others' No. 2 Fee, drilling in shale at 2,110 feet; Union Oil Co.'s No. 1-A Keithley, underreaming 8¼-inch casing at 2,510 feet.

Wildcats

Baylor County—Drilling: Hapgood and others' No. 1 Turbeville, fishing for drill stem at 2,025 feet; Independent Oil Co.'s No. 1 Robertson, drilling in shale at 1,740 feet; Magnolia Petroleum Co.'s No. 1 Mills, fishing job at 1,817 feet; Moore and others' No. 1 Fancer, drilling at 510 feet.

Clay County—Drilling: Brown and others' No. 1 Stine, drilling in rock at 1,505 feet; Cumley and others' No. 1 Stine, drilling in shale at 1,615 feet; D'Yarmett and others' No. 1 Scott, set and cemented 6⅝-inch casing at 1,200 feet; Gulf Production Co.'s No. 4 Worsham, drilling in rock at 1,165 feet; Knox Finley Development Co.'s No. 1 Howell, drilling at 1,120 feet; Lone Star Gas Co.'s No. 10 Panhandle, drilling at 345 feet; No. 11 Panhandle, drilling at 190 feet; Scaling Oil Corp.'s No. 1 Scaling, fishing for tools at 2,625 feet; Shelton Oil Co.'s No. 1 Boddy, drilling at 760 feet; Texland Production Co.'s No. 1-B Johnson, drilling at 1,545 feet; Verschoyle and others' No. 1 Stine, drilling at 1,570 feet.

Montague County—Drilling: The Texas Co.'s No. 2-A Gist, shut down for cement to set at 647 feet; Boyd Oil Co.'s No. 1 Salmon, estimated 50-bbl. pumper at 900 feet; Gulf Production Co.'s No. 1 Benton, drilling at 920 feet; Mascho Oil Co.'s No. 1 Howard, drilling at 3,625 feet; Montague Oil Syndicate's No. 2 Summerour, drilling in rock at 1,425 feet; Texhoma Oil & Refining Co.'s No. 1 Boulding, drilling at 1,625 feet.

Throckmorton County — Completions: Hall Tex Oil Co.'s No. 1 Elliott, dry at 970 feet; Texhoma Oil & Refining Co.'s No. 1 Reynolds, dry at 1,065 feet.

Drilling: Humble Oil & Refining Co.'s No. 1 Stubblefield, drilling at 1,655 feet; King and others' No. 1 Broiles, drilling at 305 feet; Larkin and others' No. 1 Conger, swabbing around 10 bbls. a day at 1,450 feet; Whatley and others' No. 1 Todd, showing 1,000,000 feet of gas and shut down at 820 feet.

Carson County—Drilling: The Texas Co.'s No. 4 Burnett, drilling in lime at 2,245 feet; No. 1 Mary Burnett, cementing 8¼-inch casing at 2,705 feet; No. 2 Mary Burnett, fishing for 10-inch casing at 2,725 feet; American Refining Co.'s No. 1 Burnett, swabbing 200 bbls. a day at 2,995 feet; No. 2 Burnett, running 8¼-inch casing at 2,558 feet; Danciger Oil Co.'s No. 1 Burnett, drilling a water well and shut down for water at 2,075 feet; Gulf Production Co.'s No. 1-A Burnett, drilling at 2,250 feet; No. 4-A Burnett, showing 2,000,000 feet of gas and drilling at 2,375 feet; Producers & Refiners Oil Corp.'s No. 1 Burnett, drilling at 250 feet; Silk and others' No. 3 Burnett, drilling by junk at 2,550 feet; Skelly Oil Co.'s No. 1 Burnett, drilling in shale at 2,400 feet.

Cottle County—Drilling: Wooley and others' No. 1 Delaney, drilling in hard lime at 2,170 feet.

Garza County—Drilling: Blackwell and others' No. 1 Boron, are setting 8-inch casing at 1,698 feet.

Gray County—Drilling: Wilcox Oil & Gas Co.'s No. 1 Combs showing estimated 300 bbls. a day production and shut down for storage at 2,995 feet; No. 1 Wilson, drilling in shells and shale at 2,385 feet; The Texas Co.'s No. 1 Saunders, fishing for 6¼-inch casing at 2,780 feet.

Hutchinson County—Drilling: Barnum and others' No. 1 Johnson, rebuilding the rig at 2,805 feet; Gulf Production Co.'s No. 1 Cockrell, underreaming 10-inch casing at 2,050 feet; No. 1 Whitenburg, drilling in lime at 2,750 feet; Tex-O-Oil Co.'s No. 1 Johnson, showing estimated 5,000,000 feet of gas and shut down for orders at 1,165 feet; Twin Six Oil Co.'s No. 1 Kingland, spudding at 245 feet; Wilson and others' No. 1 Whitenburg, trying to seat 8¼-inch casing at 2,760 feet.

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News from Fields of Canada

By Victor Lauriston

CHATHAM, Ont., Aug. 16.—In the Irma-Wainwright Field, east central Alberta, Maple Leaf Oil Co.'s No. 1, Section 24-45-8w4, has considerable gas around 1,775 feet. The well is shut down waiting for casing, and when this has been run and cemented will be drilled into the gas sand. Meanwhile the mud-pump is constantly at work pumping mud into the hole to hold back the gas pressure. It is claimed traces of oil are shown with the mud blown out of the hole at intervals under accumulated gas pressure. The well, in any event, looks like a big gasser.

Western Consolidated Oil Co., Section 20-45-6w4, which was somewhat slow in getting under way, is now reported making good headway with its standard outfit. British-Wainwright Oil & Development Co. of Calgary has shipped a heavy drilling outfit in from the Okotoks Field and will start a test on a location a short distance south of British Petroleum's No. 3. Several car loads of equipment have been unloaded at Irma. English interests represented by T. Clearithere of London, are reported to have optioned considerable territory in the Irma-Wainwright area. Wainwright Oil Producers Syndicate, Section 36-44-7w4 is drilling.

British Petroleum's No. 3, Section 29-45-6w4, is drilling around 2,000 feet, but no production is reported. No. 4 is drilling.

West of Wetaskiwin the Globe Drilling Co.'s test on Section 14-47-27w4, Pigeon Lake district, is drilling in a hard formation between 1,200 and 1,300 feet and making hole very slowly.

In Far North

In the Far North, Imperial Oil Ltd.'s new test in the Fort Norman Field, close to the discovery well, is understood to have finished rigging up and has probably spudded in by this time. No further report from this isolated area is likely for some weeks.

In Northern Alberta, the Prairie Oils., Ltd., after waiting four weeks for casing has resumed drilling at High Prairie, around 1,525 feet. F. H. Stover of Chatham is in charge of this test. W. J. West of Toronto, secretary treasurer of Prairie Oils, Ltd., recently visited the operations.

In the Athabaska tar sand areas a new extraction enterprise is being undertaken by the Anglo-Canadian Colleries and Refineries, Ltd., incorporated last fall under a Dominion charter. Preliminary work is now being carried on; and an extraction plant will be built at or near Fort McMurray to develop the tar sands for the production of oil. It is also planned to build a refining plant at Edmonton.

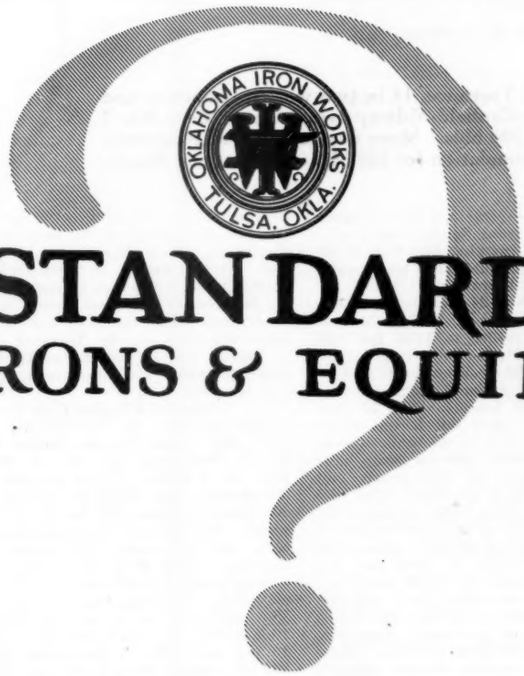
In southern Alberta, the new Imperial Oil, Ltd., test at Rice Creek, in the Willow Creek Field, 5 miles south of the abandoned Willow Creek well, is reported to have spudded in early in August. Operations here were delayed by wet weather, which prevented the hauling of materials for the well. Of two previous tests in the Willow Creek Field, one finished dry and the other had to be abandoned owing to drilling difficulties. The Willow Creek area is a portion of the foothill belt lying parallel and east of the Rocky Mountains. Farther north, production has been secured in the very similar Okotoks Field southwest of Calgary, and in spite of the failure of the tests already drilled, the Willow Creek Field is still regarded as a good prospect.

In the Medicine Hat Field, the city council of Medicine Hat has finally rejected a proposal of P. Chester Thompson and associates to drill a "town lot" deep test for oil or for a lower gas sand.

Sweetgrass Area

In the Sweetgrass area, the Canadian

(Continued on Page 94)



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California Field Operations

By L. P. Stockman

Shell Co. completes eight wells at Torrance, 14 in two weeks. Superior and Standard four each and Chanslor-Canfield-Mdway two. Union Co.'s No. 7 Hellman, Dominguez, looks like 1,000 bbls. More development at Rosecrans but only one well producing. Recompletion for 520 bbls. best at Long Beach.

LOS ANGELES, Cal., Aug. 16.—When the Shell Oil Co. put eight wells on production during the past week, bringing the company's total completions in the Torrance Field during the past two weeks to 14, it established a record, which, it is not believed has been equaled by any individual operator in one field during a period of two weeks. During the past seven days the Shell put four wells on production on its Bluemle lease, added two new producers to its Scarborough lease and completed No. 7 March and cleaned out and returned No. 1 March to production. The total new production added on the Bluemle property was 1,255 bbls. Nos. 3 and 9 on this leease were finished at identically the same depth, 3,860 feet, 8¼-inch liners being used in both, the former carrying 315 feet of 50 mesh screen and the latter 312 feet of 50 mesh screen. No. 5 Bluemle is listed as a 360-bbl. well producing 17.6 gravity oil, while No. 9 Bluemle is credited with an initial output of 275 bbls. of 18.1 gravity oil, which shows a cut of 2 per cent. Both are through ½-inch beans, the pressure on the former being 600 pounds and on the latter 550 pounds. Nos. 6 and 7 Bluemle were drilled to 3,865 feet, the 8¼-inch liner in the former carrying 316 feet of 50 mesh screen, while a similar string in the latter carried 314 feet of 50 mesh screen. Flowing through a ½-inch bean, No. 6 Bluemle made 180 bbls. of clean 17.5 gravity oil during the initial test, while No. 7 Bluemle was good for 440 bbls. of 15.3 gravity oil which cut 6 per cent.

On the Scarborough lease, Nos. 5 and 6 were completed at the same depth, 3,850 feet. They were both finished with 8¼-inch liners, the former well requiring 313 feet of 50 mesh screen and the latter 301 feet of 50 mesh. Flowing under a pressure of 400 pounds, No. 5 tanked 402 bbls. of clean 18.2 gravity oil, while No. 6 ran 210 bbls. of 17.8 gravity oil which cut 10 per cent. No. 7 March lease, a 448-bbl. well producing 18.3 gravity oil, which showed a cut of 1 per cent. was drilled to 3,860 feet, and finished with a 6¼-inch liner carrying 320 feet of 50 mesh screen. No. 1 March lease, which has sanded up a few weeks ago, was redrilled and cleaned out to 3,886 feet, the bottom of the hole being 3,904 feet, before it was put on the beam. During the first 24 hours it pumped 202 bbls. of 18.6 gravity oil, which showed a cut of 5 per cent. In addition to these completions, the Shell finished No. 4 Scarborough and, although the 8¼-inch liner had already been run, the company was not successful in putting it on production. No. 2 Kettler, a deep test in the east end of the field, is drilling ahead at 4,280 feet, but so far there have been no showings of any importance.

Superior's Completions

The Superior Oil Co., aided to some extent by the Pan American, added four new producers to its string and cleaned out another during the week. The company's new producers were No. 24, No. 28, No. 39 and No. 44 on the Torrance lease, all flowing wells. No. 28 Torrance, the largest of the quartet, was drilled to 3,818 feet and finished with a 6¼-inch oil string, including 291 feet of standard slotted pipe. The output, 625 bbls. of 20.7 gravity oil, which shows a cut of 1 per cent, is flowing through a ½-inch bean under a pressure of 595 pounds. No. 44 Torrance was brought in from 3,833 feet after being finished with a 6¼-inch oil string carrying 342 feet of 60 mesh screen. The first day's test showed 320 bbls. of 21.1 gravity oil, which cut 2 per cent. No. 24, which made 325 bbls. of 22.6 gravity oil during the first 24 hours, was drilled to 3,836 feet and finished with a 6¼-inch oil string, including 138 feet of 60 mesh screen. It is flowing through a ½-inch bean under a pressure of 660 pounds. No. 39 Torrance started to flow but it was found necessary to place it on the beam because of the small output. On the pump, it is making 110 bbls. of 17.1 gravity oil which is cutting 5 per cent. The well was brought in from 3,795 feet after being finished with a 6¼-inch oil string carrying 320 feet of 60 mesh screen. No. 13 Torrance, drilled to 4,696 feet but later plugged back to 3,856 feet, was cleaned out to the latter depth and successfully returned to production during the early part of the week. After producing for several days, however, during which time the amount of sand produced gradually increased, it sanded up. As a result, it is again off production and will require another cleanout. The Superior is still doing considerable development work in this field and indications point to three or four completions during the next 30 days.

The Chanslor-Canfield Midway Oil Co., although it has several wells just about ready to turn loose, only listed two completions during the past week. The company's largest new well, No. 65 Torrance, which was brought in from 3,700 feet after being completed with an 8¼-inch oil string, was rather inconsistent during the first few days, the cut varying from 5 to 35 per cent. It has shown some improvement since its completion although the initial output of 430 bbls. of fluid was dropped to 280 bbls. of dirty oil. The company had a little better luck with No. 19 Del Amo and, although the initial output was smaller than that from No. 65 Torrance, it was of a better quality. The former is pumping 190 bbls. of 18.4 gravity oil, which shows a cut of 3 per cent. It was drilled to 3,660 feet and finished with an 8¼-inch oil string carrying 600 feet of 100 mesh screen landed on bottom. The company has several additional wells on the Torrance lease, as well as one or two on the Del Amo property, which are about ready to be put on a test.

Standard Finishes Four

The Standard Oil Co. finished new wells, Nos. 2 and 3 on the Kettler lease, No. 7 Dominguez and No. 18 Marble Fee. No. 2 Kettler, drilled to 3,875 feet, was finished with 3,875 feet of 8¼-inch oil string, including 320 feet of 60 mesh screen. The first day's pumping was 125 bbls., the oil testing 15.7 degrees and showing a cut of 20 per cent. No. 3 was a completion at 3,845 feet, an 8¼-inch oil string also being used in this well. The maximum output was 98 bbls. of 16.1 gravity oil, which showed a cut of 10 per cent. No. 7 Dominguez was a 240-bbl. pumper from 3,865 feet, the oil testing 16.4 degrees and showing a cut of 2 per cent. An 8¼-inch oil string was used, the 315 feet of 60 mesh casing being landed on bottom. No. 18 Marble Fee, which was the largest of the company's new wells, was good for 330 bbls. of clean 23.6 gravity oil on the pump. It was drilled to 3,740 feet and finished with a 6¼-inch oil string, 570 feet of 60 mesh screen being used to take care of the oil sand.

The Standard, running about 20 strings of tools in this field, shows 5 or 6 holes which are nearing completion depths and within a few weeks several wells on the Sentinel-Joughin lease and the Marble Fee lease are scheduled for production. The Courier Flint well, recently taken over from W. C. Braham, was put on production at 3,730 feet and proved somewhat of a surprise. A 4¾-inch was used carrying 535 feet of perforated landed on bottom. Flowing through a ½-inch bean under a pressure of 490 pounds, the well produced 370 bbls. of comparatively clean 24.8 gravity oil.

The Fullerton Oil Co.'s first well on the Barlow property resulted in a 250-bbl. pumper but the oil, which tests 19.5 degrees, showed a cut of nearly 20 per cent. The oil is rapidly cleaning up, however, and it is believed that within a few days the output will be of a satisfactory quality. The 8¼-inch oil string, carrying 530 feet of 60 mesh screen, was landed on bottom at 3,600 feet. The company's No. 4 Cotton Fee was a 230-bbl. pumper of clean 25.2 gravity oil. It was finished at 3,700 feet and completed with an 8¼-inch oil string, including 600 feet of perforated.

The Pan American completed No. 1 Rinehart after drilling it to 3,860 feet and finishing it with an 8¼-inch oil string. It will be bailed for production with a day or two and at least a 250-bbl. well is anticipated. On the Kleinmeyer leases Nos. A and B, the Petroleum Securities (Doheny) has not yet finished any producers, although there are 10 wells drilling below 2,000 feet. If these properties are productive, the company should finish most of them within a short period of time, as there is less than 1,000 feet difference between the deepest and shallowest hole.

Dominguez

The next producer in the Dominguez Field will undoubtedly be the Union Oil Co.'s No. 7 Hellman, which started to flow while a test was being made early in the week. The well, 4,107 feet deep, looks good for at least 1,000 bbls. No. 6 Hellman, which is being tubed, and No. 2 Carson, standing recemented, should also be early completions. The Associated, following the sanding up of No. 1 De Francis, which blew in as a gasser a short time ago, is cleaning up the debris and will probably start a new hole within a short time.

The Marland Oil Co., following the splendid showing of oil and gas found in its well in the southern part of the field at 4,165 feet, pulled back to 4,134 feet and set a string of 8¼-inch. The United Oil Co.'s No. 1 Dominguez, in the extreme southeastern part of the field, also picked up a nice showing and the company has landed a string of 8¼-inch at 4,122 feet. The showings in these two wells have completely upset previous geological opinion and these two wells now seem to have more than an even chance of securing production.

The Birch Oil Co. has not yet picked up any showings of importance in No. 1 Humphries, although there is still a possibility of hitting the pay as the company shows only 4,100 feet of hole. The location is not very favorable, since a dry hole was drilled just to the north. The General Petroleum is still held up with a fishing job in No. 1 White at 6,358 feet and it is the intention of the company to rig up cable tools.

The Shell Oil Co.'s No. 1 Childs made a short flow during the early part of the week just before it was recemented through tubing for bottom water. If a shutoff has been secured, the Shell will probably bring this well in some time durng the next 10 days. No. 2 Childs on the same lease is drilling in a hard sand at 3,800 feet. No. 1 Hellman has been recemented at 5,265 feet, while No. 9 Reyes is being prepared for production at 3,865 feet. The company drilled the cement out of No. 8 Reyes at 3,770 feet but when the well started to flow the crew killed it in order to make more hole. No. 10 Reyes, drilling in an oil sand at 3,908 feet, is looking unusually good and should be on production shortly. The Superior's No. 1 Carpenter, west of the Shell's Childs lease in the extreme eastern part of the field, is drilling ahead in a hard sandy shale at 4,550 feet, but so far has failed to pick up the sand found by the Shell.

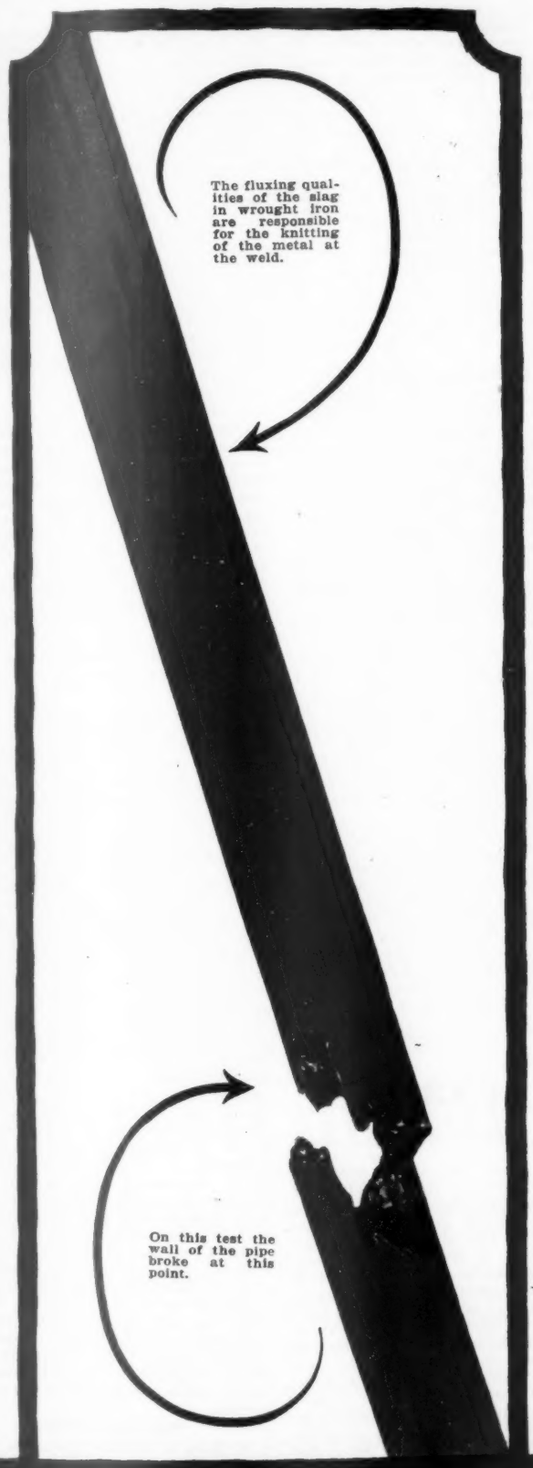
Rosecrans

Both the Superior Oil Co. and the Union Oil Co. are coring their wells ahead carefully in the Rosecrans Field and, as a result, neither the former's No. 1 Maxwell nor the latter's No. 1 Padelford were brought in. Although there is more development work being done in the

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Following is a list of tankers, date departed, destination, kind of cargo and amount in barrels:

Agwihavre, August 4, Baltimore, crude	95,783
Cerro Ebano, August 5, New York, fuel	96,043
Elisha Walker, August 5, New York, fuel	76,711
J. M. Danziger, August 6, New York, fuel	72,453
Agwipond, August 6, New York, crude	87,952
Atlantic Sun, August 7, Philadelphia, refined	80,310
Wm. H. Doheny, August 7, New York, fuel	72,233
Agwisun, August 7, New York, crude	76,315
Nora, August 7, New York, fuel	92,898
Byron D. Benson, August 7, New York, crude	80,922
Coastwise	
D. G. Scofield, August 4, Richmond, refined	76,912
W. S. Miller, August 4, Richmond, crude	73,387
J. A. Moffett, August 6, Portland, fuel	62,015
La Purisima, August 7, San Diego, fuel	35,960
Capt. A. F. Lucas, August 7, Seattled, refined	37,848
Richmond, August 7, Point Wells, fuel	64,975
Montebello, August 8, Martinez, crude	79,114
Utacarbon, August 9, Martinez, crude	75,128
W. S. Miller, August 9, Richmond, crude	74,451
S. C. T. Dodd, August 10, Willbridge, refined	80,238
La Purisima, August 10, Seattle, refined	50,884
Alden Anderson, August 10, Avon, crude	72,414
Exports	
Vistula (D. F. S.), August 4, Montreal, crude	95,199
Spirilla (Br.), August 6, England, refined	60,218
India Arrow, August 6, China, refined	83,960
Iro (Jap.), August 7, Japan, fuel	60,233
El Cano (Span.), August 7, Baiboa, fuel	48,012
Meton, August 7, Honolulu, fuel	79,464
Tejon, August 9, Japan, fuel	65,310
From San Francisco	
Shiriya (Jap.), August 7, Japan, fuel	70,124
Warwick, August 7, Seattle, refined	41,760
Tsurimi (Jap.), August 8, Japan, fuel	58,619
Kiyo Maru (Jap.), August 10, Japan, fuel	61,265
From Port San Luis	
Oleum, August 4, Oleum, crude	34,077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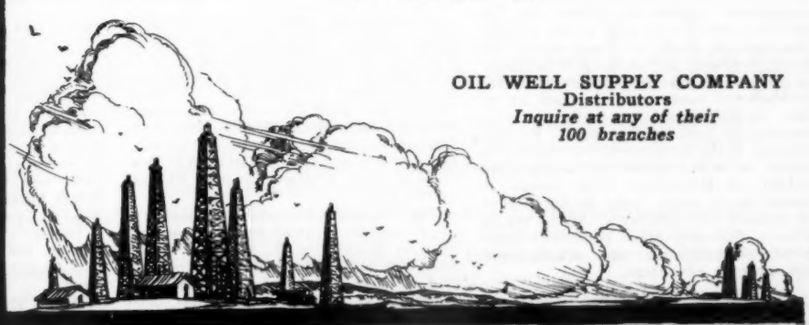

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Rosecrans Field than in the Dominguez Field, there is only one well producing and operators are somewhat anxious to get results. The Union is running about 10 strings of tools, while the Associated and General Petroleum are running 3 each. Several of the Union's holes are in the southern part of the field and, although this section cannot yet claim a completed producer, the company is drilling ahead of its convictions. In the northern part the Barnsdall Oil Co. made a production test of No. 1 Rosecrans at 4,082 feet and secured what might be made a 100-bbl. pumper. It is believed that this well, together with No. 1 O'Dea, now at 3,757 feet, will be carried to the deep sand. The Bankline Oil Co.'s No. 1 is still dry at 4,025 feet, while C. C. Julian's No. 8 is also dry and drilling ahead in a hard sand at 4,209 feet. Julian's No. 1 Athens is being reamed to set a string of casing at 3,370 feet.

The Pacific Petroleum Co.'s No. 1 Swesey, formerly Morrison's well in the southern part of the field, secured a slight showing at 4,500 feet but it was not sufficient to warrant a test. The Sandberg Petroleum Co.'s No. 1 Steele, still further south, is drilling in a sand at 4,560 feet streaked with shale but so far there have been no showings of special importance. The St. Helen's Petroleum Co. has passed the 4,200-foot level in No. 1 Rowell and, although the formation carries a nice looking sand, it does not carry any oil. To the northeast the Standard Oil Co. has reached a depth of 4,100 feet in No. 1 Cowan and, while the hole is getting quite deep, nothing is expected above 4,200 feet. In the extreme northern part of the area, the Sentinel Oil Co. is drilling ahead in No. 1 Brown at 3,845 feet. The Sentinel has made unusually fast time with this well but so far has not picked up any encouraging showings.

It is reported that the Marland Oil Co. has purchased the holdings of W. R. Ramsey, a Mid-Continent operator who has been unusually successful at Long Beach, paying approximately $75,000 in cash and an over-riding royalty. The Marland has also entered into an agreement with E. J. Miley for the development of some of his holdings on a fifty-fifty basis. Drilling is scheduled to start immediately on an offset to the Superior Oil Co.'s No. 1 Maxwell. The property seems to be pretty close to what is believed will be the outer limits of the field. Although there is only one well actually producing in the Rosecrans area, the large number of wells drilling seems to indicate there will be several producers completed simultaneously, especially if commercial production exists in the southern part where most of the present development work is being done. It would probably be far more satisfactory to the several pipe line companies if this development work could be eased up so that the field would not reach any large proportions until next summer. By this time all of the large marketing companies expect to be in a better position and the output of Rosecrans, even though it should prove large, could be taken care of without any difficulty. As is nearly always the case, some companies have plenty of production while others could use more to advantage.

Long Beach

The number of completions at Long Beach during the past week was small, there being only one really good well put on production. The Hub Oil Co.'s No. 1 Securities, a recompletion after being redrilled and deepened from 4,097 feet to 4,480 feet, was the field's largest well. Upon being returned to production, No. 1 Securities made 520 bbls. of 24.8 gravity oil which showed a cut of 2 per cent. Well No. 12 of the A. T. Jergins Trust started to flow from 4,890 feet before tubing had been run in and, in addition to a small amount of oil, made approximately 3,000,000 feet of gas. It was successfully killed and will be tubed. W. R. Ramsey's No. 4-B Municipal was put on a production test at 4,630 feet but, when the well failed to flow, preparations were started to deepen it. The Marine Oil Co.'s Nos. 16 and 17, the former at 5,100 feet and the latter at 5,020 feet, both drilling for deep production, looked good for completion some time within the next two or three weeks.

The General Petroleum is closing its drilling campaign at Long Beach with the completion of No. 2 B. & S. The well did not result in a natural flow at 4,000 feet and it will be tubed and put on the beam. The Federal Drilling Co.'s No. 1 Leedom picked up a nice looking oil sand at 4,320 feet and indications point to at least a small well. The Shell, in addition to some 10 or 12 drilling wells, is working on several cleanout jobs but does not seem to be in a position to increase its production for at least a few weeks. The Pan American tubed No. 4 Union Pacific and within a few days should begin this well, together with No. 3 Anderson at 5,090 feet. The Shell's No. 4 Hutton was somewhat smaller than was expected and, although it showed a natural flow, the maximum output was only 270 bbls. of clean 28.2 gravity oil. The well was drilled to 4,991 feet and finished with 4,085 feet of 8¼-inch, including 1,200 feet of 60 mesh screen. The Keck Syndicate Four completed well No. 3 after a series of cement jobs and plugging operations between 4,600 feet and 5,045 feet. The first day's production was practically all water but it has cleaned up to some extent and is at present pumping 140 bbls. of 21.2 gravity oil cutting 15 per cent.

Santa Fe Springs

There were no wells finished at Santa Fe Springs during the past seven days and the only development work of interest, with the exception of the Shell's attempt to develop deep production, were three cleanout jobs. The Shell's No. 6-A Slusher has passed the 6,100-foot level and the prospect of developing another producing zone below the Meyer zone does not appear to be very bright. The present formation is a hard sand. The General Petroleum, after several months of work returned No. 10 Santa Fe to production and, although the output, 65 bbls. of 28.9 gravity oil, shows a cut of 20 per cent, it may clean up. The Co-operative Petroleum Syndicate cleaned out well No. 1 bottom, 3,835 feet, and put the well back on the pump at 225 bbls. The Bellview Oil Co. increased the output of its No. 1 from 450 bbls. to 1,060 bbls. as the result of a cleanout job. The Pan American completed the only well put on production at Huntington Beach during the week by bringing in No. 6 Huntington after drilling it 4,348 feet. The output from No. 6 Huntington, 50 bbls. daily, was very satisfactory, inasmuch as the oil, which tests 17.3 degrees, shows a cut of approximately 35 per cent. The Standard Oil Co. is still battling with water in No. 1-A Orange Title, which was drilled to 5,510 feet. The water, it is believed, is entering the hole between 5,450 feet and 5,510 feet. On the A lease, the Standard's No. 24 is showing oil and gas at 3,965 feet and, although the company was not successful in securing a shut off in No. 23 at 4,145 feet, it will be drilled ahead. The General Petroleum Co. is drilling out No. 2 Daubey, which had been cemented at 3,225 feet, and will make a test.

Miscellaneous Drilling

The Standard is making good footage in the Coyote Field with No. 39 Emery and No. 100 Murphy and is making preparations to erect a new rig on the former property. There were no developments of particular interest in the Rideout Heights section of the Whittier Field during the week. The Petroleum Midway's No. 1 Witte at 4,300 feet should be the next well to pick up the deep sand if it underlies the property. The O'Donnell Refining Co. lost circulation in No. 2 Strong and, as a result, the test of this well, which looked duobtful for some time, will be delayed.

The Standard Oil Co. has run into a fishing job in its Anaheim wildcat, No. 1 Wagner, and it is quite probable that this mechanical trouble will result in the abandonment of the hole. The Vosburg Petroleum Co. has made 4,385 feet of hole in its Arcadia test and, while there hae been one or two slight showings of gas, the hole is not favorably located for commercial production.

The Oakridge Oil Co. is still doing a little work on its four wells at Bandini, although they all look like dusters. The Shell Oil Co. has No. 1 Loomis at Bell down 4,270 feet and is drilling ahead in a hard sand. Progress in the Pan American's No. 1 Pacific Southwest at El Segundo has been temporarily held up as the result of a bad casing and the Shell Oil Co. is making slow footage with No. 1 Fortuna nearby at 4,575 feet.

The Standard has apparently decided that the surface showing found in well No. 1 on Los Angeles Investment Lease No. 1 is not commercially profitable, as drilling has been resumed and the well is now being carried down. The company's No. 1 Los Angeles Extension has reached a depth of 5,125 feet, while No. 1 Farrell is close to 4,600 feet. No. 1 Potter-Smith has passed the 3,900-foot level and No. 1 Los Angeles Investment Lease No. 2 is drilling ahead at 3,490 feet. The Associated Oil Co. shows 3,200 feet of hole in its La Mirada wildcat, No. 1 McNally, while the Standard Oil Co. is drilling ahead at 2,112 feet in No. 1 Culp, a short distance away.

There has been a persistent rumor that the Shell Oil Co. has uncovered something at Seal Beach, inasmuch as two 1,000-bbl. steel tanks are being erected and, although the company states that the tanks are to be used for storing water, it appears to be quite late in the game to be erecting water tanks. The subnormal rainfall in California during the past winter has, of course, worked a hardship on many wildcats and, although several have been suspended because of this condition, the Shell's move seems to be quite late. Several geologists have rendered favorable opinions on the Seal Beach area and these support the theory that the Shell has at least secured a fair showing in either its No. 1 Bryant at 4,620 feet or No. 1 Bixby at 4,700 feet. The former well had one or two upper showings and a comparatively small blowout several months ago but the latter has never been credited with showings of any kind

In the vicinity of Van Nuys, in the San Fernando Valley, the Van Nuys Community well No. 1 has been suspended because of a fishing job. Several miles away the Golden Gate Oil Co. has started drilling a test and has reached a depth of 1,250 feet, the formation being a dark brown shale. The San Fernando Valley has been prospected for several years, and in addition to the many holes put down by independent operators, the Standard Oil Co. drilled three or four deep tests before finally coming to the conclusion that oil did not exist there in commercial quantities. Up in Riverside and San Bernardino counties there are some six or eight rank wildcats drilling, which, from a geological standpoint, were doomed as dusters as soon as the first foot of hole had been made. Near Riverside, the Hendricks well was suspended at 2,500 feet in a granite formation and, although the Spindletop Syndicate is drilling ahead at 1,667 feet and Bruce & Goodale are going forward at 1,850 feet, it will probably be just a matter of time until they, too, shut down. In San Bernardino County, the Arrowhead Development Co. shows 1,325 feet of hole, while the Victor Valley Land Owners, a community proposition, are drilling in quartz rock at 1,517 feet. The Del Rosa Oil Co. is rebuilding and repairing the rig on their well No. 1, which is down 1,054 feet. Location has been staked for a test near Hesperia in San Bernardino County by the Hesperia Oil Co. and the rig should be completed within the next week or so and drilling started.

San Joaquin Valley

A check of drilling operations in the San Joaquin Valley during the past month shows several good completions as well as the spudding in of many new wells. In the McKittrick Field, the only completion recorded stands to the credit of the Atlantic-Pacific Oil Co. on Section 30-20-22. At 1,925 feet the company secured an 18-bbl. well producing 19.1 gravity oil. There were several abandonments in the district but no new wells started. Lost Hills and Belridge are still suffering from the effects of the recent overproduction and there were no new holes spudded or producing wells completed during the month. Neither the Standard nor the General Petroleum increased their list of producers at Wheeler Ridge, although the former should be in a position to do so within a short time as two of its five drilling wells are below the 3,000-foot level.

Maricopa showed nine new wells for

(Continued on Page 96)

East Central Texas

By Staff Correspondent

CORSICANA, Tex., Aug. 16.—The daily average production of the Powell Field for the week ending August 13 was 81,386 bbls. from 731 wells, an average of 111 bbls. per well; Richland, 16,500 bbls. from 50 wells, an average of 330 bbls. Mexia 28,005 bbls. from 510 wells, a daily average of 55 bbls. per well and the Currie Field 2,550 bbls. from 68 wells, a daily average of 38 bbls. to the well.

The Boyd Oil Co. will drill the first of a number of tests to be made this year in Bowie County, which is in the northeast of the State near the borders of Louisiana, Texas and Arkansas. Notwithstanding that $5,000,000 has been spent this year in leasing and drilling in the wildcat counties of northeast Texas, with nothing to show for it but dry holes, a number of tests will be drilled in Hopkins, Titus and other counties this year.

In the Richland Field the Atlantic Oil Producing Co.'s No. 2 Swink is pumping 300 bbls. a day. The Boyd Oil Co.'s No. 8 Webb is swabbing about 210 bbls. a day, but is not a completion.

The past week has been unproductive of sensations. The Richland Field is being conservatively drilled. There are only three purchasing companies in the field and the Prairie and Texas Companies take most of the oil and they have prevailed upon operators in the field to use good judgment in the completion of wells in this period of overproduction. There is little doubt that Richland production could be increased if the new production was a necessity.

In Navarro County, the Tidal Oil Co.'s No. 10-B Ramsey, Smith survey, was a 55-bbl. well in sand at 1,555-1,600 feet. The Texas Co. and Magnolia Petroleum Co.'s No. 23 I. T. Kent made a 50-bbl. well at 1,420-1,570 feet. Birdwell & Gray's No. 3 Harvard, Mathews survey, was estimated at 30 bbls. a day at 832-1,010 feet. Williams and others' No. 2 Boyd, Mathews, started at 30 bbls. at 837-1,013 feet.

In the Richland district, Navarro County, the Godley Oil Co.'s No. 7 Allison, Choate survey, had an initial production of 350 bbls. from sand at 2,938-77 feet. The same company's No. 8 Allison started at 500 bbls. of fluid, 70 per cent water, from sand at 2,938-70 feet. The Sun Oil Co.'s No. 11 Brown, White survey, made a 900-bbl. initial production from sand at 2,899-2,948 feet.

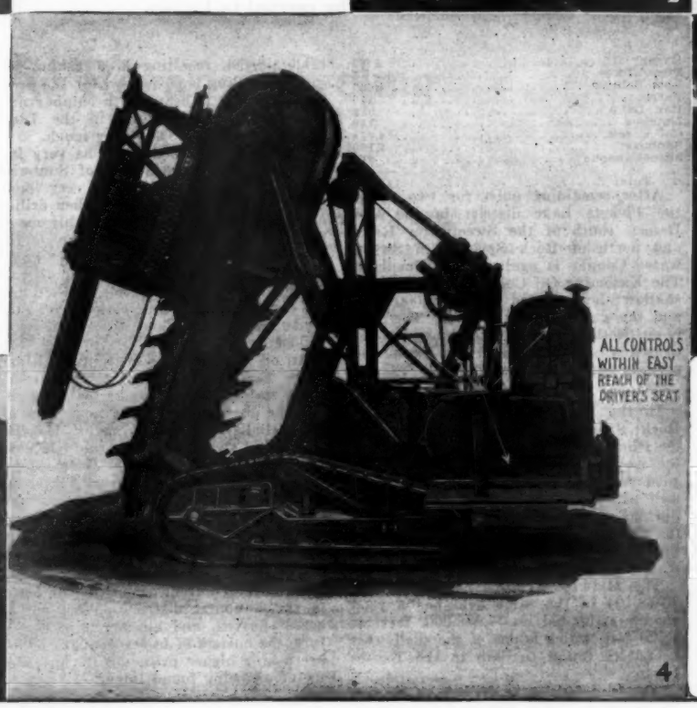
First reports on operations in the county included the following: In the Powell Field, Tidal Oil Co.'s No. 11-B Ramsey, Smith survey, set 6⅝-inch pipe at 1,500 feet; Birdwell & Gray's No. 1 Boyd, Mathews survey, rigged up. In the Richland district, the Simms Oil Co.'s No. 1 Graves, White survey, location made; Atlantic Oil Producing Co.'s No. 4 B. L. Swink, Choate survey, location; Tucker & Fox's No. 3 Davis, John White survey, rigged up; same operators' No. 4 and No. 5 R. R. Davis, White upper survey, locations; No. 6, drilling at 300 feet.

A number of wells in the Powell and the Richland Fields were close to or in the sand.

1—The Barber-Greene Ditcher which dug without difficulty through a hard-packed gravel bed 9" to 12" thick. It also had no trouble getting through clay that was almost impossible to dig by hand.

2—The Barber-Greene digging up close to trees. Compact, light, powerful, it gets about quickly in close quarters, digging straight up to obstacles.

3—Close-up of the overload release sprocket, which makes the Barber-Greene as careful as human hands. The instant a pipe is struck, the overload release sprocket halts the digging, and the pipe can be passed without being harmed.



4—Showing many important changes in the Barber-Greene Ditcher. As compact as last year's model, it has a greater capacity for hard work.

5—Handling oxide in an English gas plant—heavy, dirty work which the Barber-Greene Conveyor does at a great saving over hand labor.

It digs up 10-inch stones and goes through hard-packed slag

On its first day of work for the Northern Indiana Gas & Electric Co., one of the new Model 44-A Barber-Greene Ditchers was put to uncovering an old pipe which had lain for 12 or 15 years beneath a hard-packed slag road. It dug straight down through 2 feet of this slag, at one time going through 6 inches of brick manhole.

The Central Hudson Gas & Electric Co., Poughkeepsie, used one of the new Barber-Greenes to dig a trench in a city street. It went through 8 or 10 inches of asphaltic macadam with no trouble at all, digging itself in without any preliminary breaking of the pavement.

The soil beneath was loam and clay, and so hard that when a large stone had to be detached by hand, the sides of the trench could not be cut by shovel. It had to be dug with pick and crow bar. The ditcher dug out and discharged stones 8 and 10 inches in diameter. Other stones, too large to be dislodged, were scored an inch deep by the bucket teeth.

Such performances as these show the tremendous power of the Barber-Greene. They indicate why owners are expressing their unqualified enthusiasm for the Model 44-A.

Among those things which have given it an even greater capacity for hard digging than was found in last year's ditcher, are: Heavier shafting, longer crawler, greater power, more perfect balance and greater digging depth. "Modern Ditch Digging" will give you detailed data on Barber-Greene Ditcher performances of last year, and also a complete description of Model 44-A. Send for it.

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Wyoming Field Operations

By F. B. Taylor

Wellington burning gasser blown out and now spraying some oil. Union Co.'s Whittaker well at Fort Collins shut in, spraying oil through small opening, looks like 5,000 bbls. Beaver Creek Dome well of Transcontinental-Midwest and The Texas Co. dry in Dakota sand but to be carried to Lakota.

CASPER, Wyo., Aug. 16.—The burning gas well of the Union Oil Co. of California at Wellington has been blown out. The fire was put out by explosives and a steam blast and shortly after it was noticed that the well was spraying some oil. This looks as though the second well was turning to oil as did the first well on this structure last spring after it had blown for several weeks. The Union Oil Co. is now trying to shut off the well and a new casing nipple and valve is in readiness to be placed as soon as the crew can work around the hole.

The Union's Whittaker well on the Fort Collins Dome, south of the Wellington Field about 10 miles, is shut in but spraying a little oil through a small opening. This is looking like a 5,000-bbl. well although predictions as to its production are mainly guesses as it is not drilled in yet. The company is placing a battery of 250-bbl. tanks at the well and one 25,000-bbl. tank has been ordered. Until this last tank is ready to receive oil, the well will be kept shut in.

Complete Hogback Line

The Midwest Refining Co. has completed the pipe line from the Hogback Field in New Mexico to the railroad and the first shipment of crude was made the past week. This oil was sent to the Utah Oil & Refining Co.'s plant at Salt Lake City and the shipment consisted of three cars. The oil is a very light crude, running about 60 gravity and containing about 55 per cent gasoline and light naphthas.

Near Arminto, in Natrona County, Wyoming, about 45 miles west of Casper, the Wyland Syndicate found the first Wall Creek sand at 1,740 feet and a wet gas. The well has been drilling for more than a year and is located on a superimposed structure on the Powder River uplift. The Lox Syndicate, about 8 miles southeast of the Wyland well also found this wet gas and some oil about three years ago but has been shut down since that time. The Notches Dome lies about 10 miles east of the Wyland well and the Midwest has some black oil production on the Notches Dome. The Wyland well is located on Section 20-37-82. No drilling has ever been done on the west side of the Wyland well except some shallow holes around Lost Cabin.

The Cascade Oil & Gas Co.'s well on Section 18-21-3 north of Great Falls, Mont., has recovered the lost string of tools that has held up work for the past month and drilling is to start at once, the hole is about 3,500 feet and the location is on a wildcat structure.

The Moffat Field received another setback when the joint well of the Transcontinental, Midwest and Texas found the Dakota sand dry on the Beaver Creek Dome. The well is to go on down to make a test of the Lakota sand, however.

Field Runs

Field runs for the past week were as follows:

Salt Creek	89,595
Teapot	2,795
Big Muddy	3,780
Grass Creek	2,175
Elk Basin	1,190
Greybull	40
Rock Creek	3,150
Lance Creek	1,915
Poison Spider	655
Osage	350
Hamilton Dome	945
Mule Creek	950
Lander	330
Byron	50
Pilot Butte	75
Lost Soldier	4,680
Ferris	140
Rex Lake	215
Notches	180
Cat Creek	4,078
Sunburst	4,100
Miscellaneous	210
Total	122,038

After remaining quiet for two years, the Pickett Lake district in the Red Desert, south of the Sweetwater River and north of Rock Springs, in Sweetwater County is again in the limelight. The Kasoming Oil Co. has a gasser at a shallow depth rated at 1,000,000 feet and the gas is reported wet. The well is on Section 17-27-95 and the strike has caused a sudden demand for leases and permits out in the Red Desert.

Baxter Basin Field

In the Baxter Basin Field, south of Rock Springs, in Sweetwater County, the Producers & Refiners Corp. completed the well on Section 26-17-104 and it is good for 20,000,000 feet of gas. This well will be used to supply gas to Rock Springs and the pipe line is finished while the distribution system is now being laid in the streets of that place. The gas was found at 3,440 feet.

The Midwest Refining Co. on Section 36-18-104 in the same field has a good gasser estimated at 7,000,000 feet at 1,720 feet, which is one of the shallowest producers found to date in the Baxter Basin.

The Ohio Oil Co. is drilling on Section 28-16-104 at 2,670 feet and the Associated Oil Co. is reported getting ready to start active work again on the firm's holdings in Section 13-17-104 where the well of the company has been shut down at 3,280 feet for the past year. The hole has a string of tools at the bottom at present. The people of Rock Springs consider that an oil field would be producing in the Baxter Basin if the present gas wells there were allowed to blow for a time. All the wells have been shut in as soon as gas production was found and the similarity between the gas wells at Baxter and the new strike of the Union Oil Co. at Wellington that showed oil after blowing for a time has brought out the opinion among local residents that Baxter would also produce oil if the wells could exhaust of the gas. The Producers & Refiners well that will shortly be turned into the gas line will probably disprove this theory.

North of Rawlins at Belle Springs, on Section 6-23-88, the Kasoming found a gasser in the Frontier sands at 1,920 feet estimated good for 15,000,000 feet daily and the company has decided to go on down to make a test of the Dakota sand before making a producer of the well.

Sunburst Gasser

The new strike of the Potlatch Oil Co., which found gas at a depth of 3,045 feet on Section 21-34-1, in the Sunburst Field in Montana is attracting much attention. This well is the first deep test drilled in that field where the two producing sands lie about 1,200 and 1,500 feet respectively. The Potlatch well entered the Madison lime after passing through the Ellis sand and some shales and had 1,800 feet of the lime before any break occurred; then the bit went into a brown sand and the gas flow resulted. The gas raised the tools up in the hole and the cable parted, resulting in a fishing job so that drilling is suspended for the present. The gas is heavy with sulphur and resembles the gas found in the Lima fields of northwest Ohio very much.

The strike is looked upon as very important to the oil operators of Sunburst for it is believed the well is very likely to turn into an oil producer when drilled deeper. The oil would probably be a black crude because of the nature of the gas coming from the hole, and this would necessitate special refining equipment to handle it to make it fit for market, but the operators appear elated over the strike and are anxious to see the well drilled on down.

An oil man who has been in the Lima, Ohio, Field and is familiar with Sunburst states that the strike looks to him like the discovery well of a new black oil field similar to those about Bowling Green and Cygnet, only at the depth the Potlatch sand was found it is considered the production would be much larger for the Ohio black oil fields are rather shallow. Those fields in Ohio are also found in the lime where it is quite thick and has sand lenses through it.

The strike has already made itself felt in the upward trend of prices for leases in the Sunburst district. With only a gasser proven, and oil merely a conjecture, the holders of leases in that vicinity are asking higher prices on the probability of oil being found later.

The Gladys Belle Oil Co. operating in northern Montana and the Sunburst Field in particular, has been sued by the Montana Canadian Oil Co. for $360,000 damages. The plaintiff alleges that the Gladys Belle obtained a lease from the plaintiff and proceeded to drill a well which was drilled to 3,015 feet and abandoned. The plaintiff company states that a flow of 15,000,000 feet of gas was struck and was spoiled by the abandonment of the hole. The plaintiff states that Gladys Belle was to turn back the leases and give the plaintiff notice of abandonment if the Gladys Belle decided to quit which was not done.

The Crumley McKnight drilling on Section 4-34-2 where the gusher wells have been coming in recently, brought in a producer good for 100 bbls. the past week in the Ellis sand at 1,483 feet. On Section 2-34-2 a producer estimated at 150 bbls. was drilled in the Ellis sand at 1,508 feet by the Big West Oil Co.

Runs for July

Salt Creek	2,799,745
Teapot	80,025
Big Muddy	119,770
Grass Creek	106,725
Elk Basin	37,040
Greybull	1,510
Mule Creek	25,940
Rock River	92,865
Lance Creek	86,805
Poison Spider	28,510
Osage	13,775
Hamilton Dome	23,500
Lander	10,835
Byron	2,900
Pilot Butte	2,230
Lost Soldier	185,029
Ferris	4,365
Cat Creek	148,370
Sunburst	142,315
Miscellaneous	20,165

ARGENTINE OIL EARNINGS

The Argentine Government petroleum properties earned 6,000,000 pesos in 1923, according to advices to the Department of Commerce. Assets of the two Government owned fields were carried at 76,556,000 pesos on the balance sheet. The earning statement showed receipts of 16,663,000 pesos from the sale of petroleum and transport and operating expenses of 10,663,000 pesos. The two fields are south of Buenos Aires, and have an area of about 50 square miles on which at the end of 1923 there were 137 producing wells and 12 drilling.

Ithaca Program for Petroleum Division Of Chemical Society

Col. G. A. Burrell, secretary of the Petroleum Division of the American Chemical Society announces the following program of the division at the semi-annual meeting of the American Chemical Society at Ithaca, N. Y., September 8-13, 1924. The division expects a large attendance from the petroleum industry. Men, expert in their work, will discuss some of the latest findings in petroleum research:

1. Dew-points of Gasoline-Air Mixtures. R. E. Wilson and D. P. Barnard, Massachusetts Institute of Technology, Cambridge, Mass.

2. A New Suggested Method of Refining Petroleum. R. H. Brownlee, Pittsburgh, Pa.

3. Distribution of Sulphur in Petroleum Fractions as Compared with the Original Crude. A. P. Njerregaard, Empire Refineries, Inc., Okmulgee, Okla.

4. Crank Case Dilution. C. M. Larson, Sinclair Oil Refining Co., New York, N. Y.

5. Progress in Cracking Petroleum. T. A. Boyd, General Motors Research Corp., Dayton, Ohio.

6. A Turbine Oil Deposit. A. G. Blakely, Philadelphia & Reading Coal & Iron Co., Philadelphia, Pa.

7. Thermal Relations in the Cracking of Petroleum in the Liquid Phase with its Subsequent Distillation. Roy Cross, Kansas City Testing Laboratory; Kansas City, Mo.

8. The Chemistry of Sweetening in the Petroleum Industry. Gerald L. Wendt and S. H. Diggs, Standard Oil Co. of Indiana.

9. The Action of Petroleum Refining Agents on Pure Organic Sulphur Compounds Dissolved in Naphtha. A. E. Wood, A. Lowy and W. F. Farragher, University of Pittsburgh, Pittsburgh, Pa.

10. The Effect of Anti-Knock and Knock Inducing Substances on the Hot Wire Ignition Curves of Certain Pure Fuels. C. E. Boord and Raymond E. Schaad, Ohio State University, Columbus, Ohio.

11. The Effect of Crak Case Dilution. D. P. Barnard, Massachusetts Institute of Technology, Cambridge, Mass.

12. Present Status of the Natural Gasoline Industry. G. A. Burrell, Pittsburgh, Pa.

AMERICAN SHIPS FOR EXPORTS

WASHINGTON, D. C., Aug. 16.—Chairman O'Connor of the United States Shipping Board has decided to go direct to the shippers to find out just where the American merchant marine stands with them. He is writing personal letters to 10,000 American exporters, importers and others engaged in foreign commerce, asking whether they are using American ships. He asks the following four pointed questions: "1. If foreign flag vessels are used by you, what advantages, if any, do you derive from their use as against American flag vessels? 2. Is it your policy to direct the method by which your raw or manufactured materials from foreign sources shall be transported, and could you designate American vessels for such importations. 3. Could you advise that you will insist that at least 51 per cent of the export or import business under your control be transported in American vessels? 4. May we count upon your cooperation in directing your foreign shipments by American vessels?"

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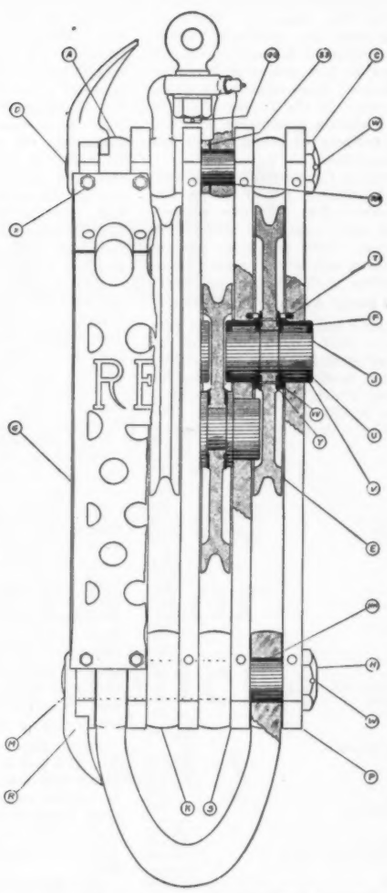

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San Pedro, California U·S·A.

Gulf Coast Oil Operations

By P. L. McGreal

Number of wells drilling declines 35 per cent in 60 days. Production 7,029 bbls. less. New production in Coastal pools 1,760 bbls. Luling drops to 37,957 bbls. The Texas Co.'s No. 11 Abrams, West Columbia, flowing 1,100 bbls. Vacuum Co.'s wildcat, Calcasieu Parish, Louisiana, swabbing 65 bbls.

HOUSTON, Tex., Aug. 18.—The Gulf Coast Pools and the southwest fields, with the exception of Luling, are showing the effect of low prices and diminished operations. One concern is doing most of the work in the Luling Field in an effort to maintain production in order to complete delivery of crude which has been contracted for.

Completions in the Coastal Pools during the week number 13, of which five are worked-over holes. The new production is 1,760 bbls., compared with 2,450 bbls. last week. Two dry holes are recorded and three salt water wells. Seven wells are bailing at the close of the week.

Estimated Daily Average Production

The estimated daily average gross production in the Gulf Coast Pools for the week is placed at 85,970 bbls. against 86,435 bbls. last week. The estimate for the Southwest Fields is placed at 45,927 bbls. against 52,491 bbls. last week. The estimate for each district in the coast is as follows:

District—	Gross Bbls.
Batson	1,685
Blue Ridge	665
Barber Hill	180
Dayton	100
Damon Mound	1,485
Edgerly (La.)	570
Goose Creek	11,600
Humble	7,250
Hull	22,500
Jennings (La.)	635
Markham	200
Orange	12,250
Pierce Junction	280
Spindletop	960
Saratoga	1,480
Sour Lake	34,465
Vinton (La.)	6,170
Welsh and Anse La Bute (La.)	90
West Columbia	12,475
Miscellaneous	930
Total	85,970
Southwest Fields—	
Luling	37,957
Laredo	4,275
Somerset	2,475
Calliham	655
Rockdale-Minerva	565
Total	45,927
Grand total	131,897
Grand total last week	138,926
Decrease	7,029

Drilling Declines

The number of drilling wells in the Coastal pools has dropped off 35 per cent during the past 60 days, until now only such work is being done as is called for by lease obligations. Still, nothwithstanding the decrease in operations the daily average production hugs the 80,000-bbl. mark and above in the Gulf region, where a few big wells are enough to offset the decline in the output of the old producers.

In the Orange Pool, the Rycade Petroleum Corp.'s No. 2-E State land, in Cow Bayou, which came in late in July making 3,600 bbls. at 4,997 feet, the deepest well in the pool and one of the few deep producers in the entire coastal region, is now flowing 1,200 bbls., 30 per cent sediment and water. The Atlantic Oil Producing Co.'s No. 3 Hager is pumping 20 bbls. at 3,325 feet. The Mutual Oil Co.'s No. 2 Chesson and the Tillery Oil Co.'s No. 2 State land, in Cow Bayou, will make pumpers at 3,365 and 2,875 feet respectively. The Humble Oil & Refining Co. is bailing Nos. 5 Winifree at 2,890 and 3,740 feet. They are worked over holes.

The Rycade Co. has a derrick up for No. 8 State land and locations for Nos. 3-E and 14. On the east side of the stream, the Brownie Babbittee Oil Co.'s No. 3 Brown is shut down at 4,350 feet and No. 4 is fishing at 4,100 feet. The Sun Oil Co.'s No. 5 Brown is deepening at 4,624 feet. The Gulf Production Co.'s No. 16 Hager fee is drilling around 3,540 feet. It is rigging No. 2 Hamman Consolidated. On the opposite side, the Gulf Co.'s No. 5 Pevito is drilling at 4,765 feet and 5-A Winifree is sidetracking. No. 11 Hager-Moore is fishing at 4,200 feet. On the north side of the pool, the Mutual Oil Co.'s No. 3 Chesson is fishing for drill pipe. It is a work-over. No. 13 Chesson is drilling below 4,390 feet after bailing at 4,350 feet. In other parts of the pool Brownie Babbittee Oil Co.'s No. 9 McLean is sidetracking from 2,800 feet. The Edgerly Petroleum Co.'s No. 7 Carbello is at 3,355 feet. Northeast of production, the Sun Oil Co.'s No. 1 Kato is at 4,540 feet and about 1 mile northeast, the American National Oil Co.'s No. 1 Winifree is below 4,675 feet.

Hardin County Pools

In the Batson Pool, the Paraffin Oil Co.'s No. 38 Knight is pumping 15 bbls. at 445 feet.

The Kirby Petroleum Co.'s No. 2 Hodges is deepening at 3,185 feet and S. R. Buchanan's No. 77 Milhome, in the same section of the pool, is fishing. The Gulf Production Co.'s No. 13 is below 1,345 feet. The Sun Oil Co.'s No. 73 Paraffin is drilling at 922 feet. The Ada Belle Oil Co.'s No. 78 Honeymoon is at 980 feet and W. B. Flynn's No. 1 Donohoe is drilling around 600 feet. Campbell & Borsum's No. 2 Hooks is at 1,387 feet. The Deutser Oil Co.'s No. 10 Trustee is rigging up to start drilling.

In the Saratoga Pool, the Sun Oil Co.'s No. 170 fee is pumping 25 bbls. at 630 feet. The Rio Bravo Oil Co.'s No. 39-A is bailing saltwater at 875 feet. The Gulf Production Co.'s No. 22-BBBC is a water hole at 1,350 feet and Paggi Brothers abandoned No. 4 Lewis at 1,525 feet.

The Rio Bravo Oil Co.'s No. 5 is drilling at 824 feet. It is rigging No. 1-B. The Weldon Oil Co.'s No. 5 Kirby and Sun Oil Co.'s No. 171 fee are both rigging up.

Liberty County Pools

The Gulf Production Co.'s No. 10 Baldwin in the Hull Pool, was deepened to 3,110 feet from 2,798 feet where it was a small pumper. A shale and sand formation will be tested. It is located 500 feet east from The Texas & Vacuum Oil Co.'s No. 2 Hannah, on the southwest side of the dome. It is flowing from 900 to 1,000 bbls. per day and is four months old. This well is on the edge and off the shales. The Gulf Co.'s No. 12 Morris-Phillips is a pumper at 3,475 feet after working over.

The Humble Oil & Refining Co.'s No. 1 Hannah, on the west side of the dome, and some 2,000 feet northwest from the Texas-Vacuum well, is drilling around 3,466 feet. It is out on the flats. The Texas-Vacuum Co.'s No. 3 Hannah is below 2,785 feet. The Gulf Co.'s No. 15 Hannah is below 3,200 feet. The Humble Oil & Refining Co.'s No. 10 Hooks-Spells on the south side, is below 2,546 feet. The Mecom Oil Co.'s No. 6 Mecom, on the northwest side, is at 3,380 feet and No. 7 is below 1,810 feet. The Higgins Oil & Fuel Co.'s No. 2 Taylor is drilling around 3,010 feet. The Yount-Lee Oil Co.'s No. 3 Merchant, on the north side, is at 1,655 feet with a derrick for No. 10. The Humble Co. has a derrick for No. 3 Merchant. On the dome, the Red Cantor Oil Co.'s No. 3 Cantor is around 635 feet. The Gulf Co.'s No. 7 Scarborough is sidetracking at 2,660 feet. No. 13 is around 1,455 feet. The Gulf Co. is using an electric drilling rig on the Scarborough lease. On the east side, the Republic Production-Houston Oil Co.'s joint No. 88 Dolbear, is drilling at 3,858 feet. No. 89 is rigging up with a location for No. 90 Dolbear. To the southeast, the Gulf Co.'s No. 6 Thomas is fishing. Its Nos. 16 and 29 Phoenix are working over. No. 36 Phoenix is drilling at 3,487 feet with a derrick standing for No. 43. The Houston Production Co.'s No. 12 Barngrover is drilling around 1,876 feet.

The Texas Co. is starting a test on the Ott land 6 miles west of Batson and the Hofer Oil Co. is drilling southwest of Batson below 965 feet. The Gulf Production Co.-D. J. Harrison joint No. 2, south of Devers, is idle at 1,700 feet.

Harris County

In the Goose Creek Pool, the Sun Oil Co.'s No. 8 Bartlett-Smith was abandoned as a dry hole at 2,890 feet. The following wells are bailing: Humble Oil & Refining Co.'s No. 51 Galliard 25 acres at 4,300 feet; Inca Production Co.'s No. 4 Duke at 3,500 feet; La Rue Oil Co.'s No. 1 Dannebaum, at 1,270 feet; Allen & Marshall's No. 1 Gillette at 2,100 feet and Gulf Production Co.'s No. 26 Beamont at 3,700 feet.

In the bay waters, the Gulf Production Co.'s No. 3 Hirsch is drilling at 3,987 feet with No. 4 rigging to start. No. 2 San Jacinto is rigged. No. 15 State land lease is working over and No. 11 is drilling at 2,924 feet. No. 29 Beaumont is at 3,490 feet. The Humble Oil & Refining Co. is setting up an electric rotary outfit to drill No. 5 Jones.

On the mainland, the Gulf Co.'s No. 21-A Wright is drilling at 2,124 feet and No. 3 H. Galliard is at 2,875 feet. The Humble Oil & Refining Co.'s No. 11 Tabb is at 2,135 feet. No. 26 Sweet is drilling at 4,530 feet. On the Smith lease, on the east side, the Humble Co.'s No. 56 is drilling at 3,960 feet with No. 59 rigging.

The Gulf Coast-United Central's No. 28 Galliard is drilling at 3,155 feet. The Copeland Oil Co.'s No. 6 Bryan is around 764 feet and the Hisgen Petroleum Co.'s No. 2 Busch is at 2,710 feet.

In the Humble Pool, Deering and others' No. 2 Bissonett is in shale and sand at 3,575 feet, showing heavy gravity oil. It is on the northwest side of the pool. The Southern Petroleum Co.'s No. 18 Landslide is working over.

At Pierce Junction, the Atlantic Oil Producing Co.'s No. 1 Ross is drilling around 3,825 feet and the Gulf Production Co.'s No. 16 Taylor is below 3,370 feet.

Brazoria County Pools

In the West Columbia Pool, The Texas Co.'s No. 11 Abrams is flowing 1,100 bbls. at 2,880 feet. It is 475 feet east from the famous No. 1 Abrams. The Humble Oil & Refining Co.'s No. 9 Tyndale-Wyoming is drilling at 2,987 feet and No. 2 Badge at 4,310 feet. The Gulf Co.'s No. 6 Tom Hogg is fishing. The Sun Oil Co.'s No. 3 Robertson is drilling deeper at 3,366 feet.

At Damon Mound, the Sinclair Oil & Gas Co.'s No. 1 A. Cave is below 3,100 feet. The Rycade Petroleum Corp.'s No. 1 Wisdon, 7 miles southeast of Damon, is shut down after drilling into gyp at 630 feet and then into a cavity. Company is drilling a water well. The Sinclair Co.'s No. 1 Perry, on the south side of Stratton Ridge is below 2,025 feet.

Fort Bend County

In the Blue Ridge Pool, the Gulf Production Co.'s No. 9 Blakely is deepening below 2,740 feet, after bailing at 2,670 feet. Same company's No. 5 West-Schenck is around 3,870 feet and No. 1 Invincible is fishing at 2,455 feet. The Texas Co.'s No. 12 Robinson is drilling at 1,715 feet.

At Big Creek, south of Richmond, the Gulf Production-Snowden & McSweeney's No. 7 Wheat is deepening at 3,870 feet. It bailed dry at 3,775 feet. Same interests' No. 14 Davis is at 2,323 feet and No. 15 Davis is at 2,020 feet. Rich & Maxudian have a location for No. 2 Ahlers. The Union Sulphur Co. is drilling sulphur tests on The Texas Co.'s 300 acres of fee land there.

The Gulf Development Co.'s No. 3 Vogel, in that county, is shut down after setting and cementing 8¼-inch casing at 2,250 feet. Shulte and others are drilling a formation test south of Richmond.

In the Markham Pool in Matagorda County, the Rycade Petroleum Corp.'s No. 1 Sisk is fishing at 2,550 feet and No. 2 Meyers is drilling at 3,370 feet. The Powers Production Co.'s No. 1-B Smith is rigging to start. The Gulf Co.'s No. 1 Caney Cattle Co. lands, near Sargent, is below 2,400 feet.

Semi-Pools

At High Island, in Galveston County, the Gulf Production Co.'s No. 1 Smith is drilling below 2,200 feet. The Sun Oil Co.'s No. 7 Cade is below 3,850 feet and No. 1 C. Cade is around 3,600 feet. Additional storage is being provided by the Patton Oil and the Great Western Oil Co. to care for the shallow sand production they have at from 145 to 170 feet from a cap rock on the dome.

At Hockley, Harris County, the Texas Exploration Co.'s No. 17 Warren is at 2,960 feet and No. 20 below 255 feet. East of Little York, Davis & Geiscke's No. 1 is below 1,100 feet. The Gulf Production Co.'s No. 2 Felder on the south side of Boling Dome, in Wharton County, is drilling below 1,975 feet.

The Kirby Petroleum Co. & Mills Bennett's joint No. 1 McKinney, on the southeast side of Barber Hill Dome, is drilling below 3,465 feet.

In Jackson County, the Jackson County Syndicate's No. 1, 7 miles northwest of Edna, is drilling at 465 feet. The Vanderbilt Petroleum Co.'s No. 1 Seliner, near Vanderbilt, is drilling at 2,230 feet.

In the Jennings, Louisiana, Pool, the Gulf Refining Co.'s No. 34 Jennings-Chicago is good for 60 bbls. on the beam at 2,325 feet.

The Vacuum Oil Co.'s wildcat near Lockport, Calcasieu Parish, Louisiana, swabbed 65 bbls. per day at 3,810 feet and will be drilled deeper into the sand in the hope of increasing the output.

Milam County Cut 20 Cents

The Owens Refining Co. posted $1.05 for Rockdale-Minerva shallow sand crude, a reduction of 20 cents from the previous quotation. The refinery takes practically all the crude and establishes the price.

The Roundtree Oil Co.'s No. 8 fee is rated as a 20-bbl. pumper at 700 feet and the Rockdale Oil Co.'s No. 2 Roark is credited with 30 bbls. at 990 feet. No. 3 is rigging. Noarck and others' No. 1 Phillips, is a 10-bbl. well at 998 feet. Lucky & Wilson's No. 2 Moody, 5 miles west of Rockdale, is bailing.

In the Somerset Field, the Helvetia Oil Co. is drilling No. 1 Smith, the National Oil Co.'s No. 11 Oliver and Hitcham & Howard's No. 1 Schmidt. On the Atascosa County side, the Helvetia Oil Co.'s No. 6 Weiners is drilling, as is Miller Oil Co.'s No. 13 Knight and Associated Oil Co.'s No. 1 Guinn.

The Webb County Pools developed little of importance during the week. In

(Continued on Page 90)

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THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

North Louisiana-Arkansas

By M. L. Vaughn

Increase of 4,025 bbls. due largely to Cotton Valley production although wells there are not holding up to original promise. Fortuna Oil Co.'s No. 2 S. J. Merritt, flowed 8,000 bbls. in eight hours, then closed for choker, but when opened refused to flow. Same company's No. 3 L. Merritt made 3,000 bbls.

SHREVEPORT, La., Aug. 18.—Despite the noticeable decline in drilling activity during the past few weeks, resulting in an unusually small number of completions, production for the past week showed an average increase of 4,025 bbls. a day. The increase in the North Louisiana Field was due almost entirely to the new wells in the Cotton Valley district which, although not holding up to their original promise, added several thousand barrels to the daily production for the few days, at least. Runs from the Cotton Valley district for the past week averaged 9,725 bbls. a day, a daily increase of 2,895 bbls. Runs from the entire North Louisiana Field averaged 58,480 bbls. a day, an average daily increase of 2,590 bbls.

Runs from the light oil district in the Smackover Field averaged 36,550 bbls., an increase of 1,140 bbls. a day, slight increases in production in the El Dorado, Nevada County and Stephens districts, bringing the daily average up to 146,350 bbls., an increase of 1,435 bbls. a day, the total increase from both the North Louisiana and South Arkansas Fields, amounting to 4,025 bbls.

Total production for the week averaged 204,830 bbls. a day, distributed as follows:

North Louisiana	Bbls.
Bellevue	4,920
Caddo light	10,250
Caddo heavy	2,51[illegible]
Cotton Valley	9,725
De Soto and Red River	4,515
Elm Grove	820
Haynesville	18,120
Homer	7,615
Total	58,480
South Arkansas	
El Dorado	12,910
Nevada County	1,390
Smackover light	36,550
Smackover heavy	93,195
Stephens	2,305
Total	146,350
Total both fields	204,830
Total previous week	200,805
Increase	4,025

Completions—Union County, Arkansas

Completions in the Union County area of the Smackover Field during the past week numbered 13, all producers, with an aggregate initial production of 1,820 bbls.

Pure Oil Co. completed No. 1 Lindsay, Section 29-16-15, pumping 70 bbls. at 2,073 feet, and No. 2 Lindsay, in the same section, pumping 80 bbls. at 2,074 feet.

The Riggs Drilling Co. completed No. 2 Rice, Section 6-16-16, pumping 120 bbls. at 2,270 feet.

W. E. Rutledge, trustee, completed No. 1 Sarruth, Section 7-16-15, pumping 35 bbls. at 2,313 feet.

Sutherland and others completed No. 2 Neely, Section 1-16-17, making a 100-bbl. pumper at 2,267 feet.

The Black Duke Oil Corp.'s No. 1 Wilson, Section 19-16-15 is swabbing 200 bbls. at 2,070 feet.

Bond, trustee, completed No. 3 Powell, Section 19-16-15, swabbing 300 bbls. at 2,104 feet.

The Cherokee Petroleum Co.'s No. 5 Burton, Section 25-16-16, is swabbing 500 bbls. at 2,053 feet.

J. E. Crosbie, trustee, completed No. 4 Alphin, Section 29-16-15, pumping 15 bbls. at 2,079 feet.

The Gilliland Oil Co.'s No. 4 Staples, Section 1-16-17, made a 65-bbl. pumper at 2,265 feet.

The Gulf Refining Co. completed No. 19 L. Werner, Section 6-16-16, pumping 65 bbls. at 2,255 feet, and No. 21 L. Werner in the same section pumping 70 bbls. at 2,265 feet.

The Imperial Oil & Gas Co. completed No. 1 Morgan, Section 29-17-14, pumping 200 bbls. at 2,195 feet.

Ouachita County

Evidence of the comparative shutdown of drilling operations is shown by the fact that there were only five completions in the Ouachita County area of the Smackover Field during the past week. Of these, one was a gas well and four producers had an aggregate initial production of 375 bbls.

Clark & Melat completed No. 1 Murphy, Section 4-16-15, making 50,000,000 feet of gas with a spray of oil at 2,268 feet.

The Mercury Oil Co. completed No. 2 Hardin, Section 28-15-16, pumping 65 bbls. at 2,303 feet deep.

The Simms Oil Co.'s No. 3 Gaskin, Section 30-15-16, is swabbing 200 bbls. at 2,033 feet.

Sutton and others completed No. 3 Hughes, Section 28-15-16, flowing 35 bbls. at 2,323 feet.

The Texas Co. completed No. 7 Stringfellow, Section 28-15-16, making a 75-bbl. pumper at 2,311 feet.

Cotton Valley District

The completion of an 8,000-bbl. gusher in the Cotton Valley district, Webster Parish, Louisiana, caused considerable excitement for the moment, followed by a repetition of the circumstances which have attended most of the big wells in this territory. The well blew in at 2,520 feet with an estimated production of 8,000 bbls. a day, flowed for about eight hours at this rate, then was closed in to put choker in the line. When opened up, the well refused to flow and its fate is now hanging in the balance. The well was drilled by the Fortuna Oil Co., the second well on the S. J. Merritt lease in Section 14-21-10, and the production was almost clean pipe line oil, showing only 5 per cent salt water and 3 per cent b.s.

The Fortuna Oil Co. also completed another big well on the L. Merritt lease in Section 14-21-10, No. 3 coming in with an initial production of 3,000 bbls., 6 per cent salt water and 2 per cent b.s. Choker was put in the line and it is now flowing at the rate of 2,000 bbls. a day, 17 per cent salt water and b.s. at 2,523 feet. This well is close to the Ohio Oil Co.'s big well on the Bodcau Lumber Co. lease, in the limited area in which the few good wells of this field have been completed.

The Standard Oil Co. completed a good gas well on the McInnis lease, in Section 22-21-10, making 35,000,000 feet of dry gas at 2,525 feet.

The Woodley Petroleum Co.'s No. 3 Merritt, in Section 14-21-10, is blowing with air at the rate of 400 bbls. a day, 50 per cent salt water and b.s. The well was completed at 2,563 feet.

Morefield & Tanner got salt water in their first test on the Pine Woods Lumber Co. lease in Section 14-21-10, and the well was abandoned at 2,752 feet.

Caddo Parish

Two completions were made in the Pine Island district during the week, the Dixie Oil Co.'s No. 62 Robertshaw, Section 14-51-21, pumping 14 bbls. at 1,664 feet and the Mutual Oil Co.'s No. 10 Rains, Section 22-21-15, pumping 5 bbls. at 1,626 feet.

Columbia County, Arkansas

In the Stephens Field, the Atlantic Oil Producing Co. completed No. 6 Murphy, in Section 14-15-20, pumping 15 bbls. at 2,137 feet.

Nevada County, Arkansas

In the Nevada County district, Smitherman & McDonald completed No. 3 McKinney, Section 10-14-21, making 8,000,000 feet of gas at 1,165 feet.

Claiborne Parish

The Triangle Drilling Co. abandoned its wildcat test on the Ferguson lease in Section 5-21-5, getting salt water at 3,002 feet. The well is 10 miles northeast of Homer.

Ouachita Parish

The Palmer Corp. completed No. 1 Grayson, Section 12-19-4e, making 34,000,000 feet of gas at 2,158 feet.

The West Virginia Oil & Gas Co.'s No. 4 fee, Section 4-18-5, made 5,000,000 feet of gas at 2,108 feet.

Union Parish

Johnson and others tested dry in their No. 1 Pryor Estate, Section 35-22-2w, and the test has been abandoned at 3,009 feet. The well is 10 miles southwest of the Oakland district.

On the eastern edge of the parish, adjoining the Monroe gas field, The Texas Co. completed No. 1 Grayling Lumber Co. in Section 32-21-4e, making 16,000,000 feet of gas at 2,142 feet.

Union County, Arkansas

The Arkansas Drilling Co. has 1,800 feet of fluid, with 50 per cent salt water, and waiting orders in 30 feet of sand at 2,298 feet in No. 2 J. E. Murphy, Section 8-16-16; Beggs and others tested dry, with a showing of oil at 2,073 feet in No. 1 Murphy, Section 36-16-16, now waiting on 2½-inch drill stem.

Bonderant and others are drilling in sandy shale at 2,570 feet in No. 1 Tuberville, Section 9-18-12; Bradley and Cazart are shut down and waiting orders at 2,456 feet in No. 1 Miller, Section 21-17-15; Bauxite Oil Co. set 10-inch casing at 64 feet in No. 1 Murphy, Section 35-16-15.

The Cherokee Petroleum Co. is drilling at 620 feet No. 7 Burton, Section 25-16-16; J. W. Clark is drilling at 2,065 feet in No. 2 Alphin, Section 14-16-16; Cross and others waiting on standard rig with 10 feet of sand and 200 feet of oil in hole at 2,080 feet in No. 3 Smith, Section 13-16-16.

Dyer Brothers set 6-inch casing at 2,217 feet in No. 1 Stout Lumber Co., Section 31-15-16, and derrick up for No. 2 Stout Lumber Co., same section; East and others drilling at 1,710 feet in No. 1 Thompson, Section 5-17-15; Estes and others have derrick up for No. 1 Ponder, Section 1-16-17.

The Federal Petroleum Co. is drilling at 2,260 feet in No. 3 Ballard, Section 10-16-15; Freeman and other drilling at 1,710 feet in No. 1 Burton, Section 25-16-16; Gilliland Oil Co. is rigging up No. 3 Staples, Section 1-16-17.

The Gulf Refining Co. set 10-inch casing at 135 feet in No. A-1 Burton, Section 25-16-16, and drilling at 1,325 feet; Hatcher and others rigging up No. 1 Murphy, Section 25-16-16; Holliday, trustee, set 10-inch casing at 62 feet in No. 5 Goff, Section 6-16-16.

The Humble Oil & Refining Co. tested salt water at 2,261 feet in No. 3 Saxon, Section 32-15-16, and plugged back 10 feet and waiting on cement to set at 2,251 feet; Imperial Oil & Gas Co. set 10-inch casing at 187 feet in No. 2 Morgan, Section 29-17-14; Magnolia Petroleum Co., drilling at 2,085 feet in No. 1 Bradford, Section 8-16-15; and drilling at 1,150 feet in No. 2 Campete-Campbell, Section 13-16-17.

Meek, trustee, is rigging up No. 3 Burton, Section 25-16-16; Ohio Oil Co. set 6-inch casing at 2,006 feet in No. 2 Scott, Section 19-16-15; Phillips Petroleum Co. set 6-inch casing at 1,960 feet in No. B-2, Alphin, Section 11-16-15.

The Pure Oil Co. set 8-inch casing at 2,037 feet in No. 2 Burns, Section 20-16-15; waiting on standard rig with 700 feet of oil and 23 feet of sand in hole at 2,117 feet in No. 3 Massey, Section 17-16-15; Reliance Drilling Co. is drilling at 2,618 feet in No. 1 Meakin, Section 9-16-16.

Sam Richardson is waiting casing to test 8 feet of sand at 2,371 feet in No. 3 Murphy, Section 23-16-15; W. E. Rutledge, trustee, shut down No. 1 Meek, Section 6-16-16, and waiting orders at 1,425 feet.

The Standard Oil Co. is drilling at 2,200 feet in No. 4 Alphin, Section 2-16-15; Sun Oil Co. set 6-inch casing at 2,200 feet in No. 3 Smith, Section 1-16-17; bailing to test 52 feet of broken sand at 2,119 feet, 15 per salt water in No. 4 Wilson, Section 19-16-15.

The United Central Oil Corp. set 10-inch casing at 100 feet in No. 2 Burton, Section 25-16-16; and derrick up for No. 3 Burton, same section; set 10-inch casing at 56 feet in No. 2 Craig, Section 15-16-15.

Schuler and others tested dry at 2,075 feet with 15 feet of sand No. 3 Henderson, Section 19-16-15, and bailing to test 23 feet of sand at 2,083 feet.

Ouachita County Drilling

The Arkansas Invincible Oil Co. is drilling its No. 9 Patton, Section 31-15-16, at 1,675 feet; the Atlantic Oil Producing Co. is waiting on standard rig with 1,600 feet of oil and 20 feet of sand in the hole at 2,285 feet in No. C-1 Brierton, Section 24-15-17; set 6-inch casing at 1,850 feet in No. 4 Jeffus, Section 25-15-17.

Bray-Hawthorne are arranging to set 6-inch casing at 2,125 feet in No. 1 Copenhaven, Section 13-15-17; J. E. Crosbie set 6-inch casing at 1,895 feet in No. 4 Berry, Section 33-15-15; Forest Oil Co. set 12-inch casing at 48 feet in No. 5 Cramer, Section 22-15-16; set 6-inch casing at 2,242 feet in No. 7 Cramer, Section 27-15-16.

The Gilliland Oil Co. is waiting on standard rig with 400 feet of oil in hole and 13 feet of sand at 2,267 feet in No. 4 McRea, Section 30-15-16; bailing to test 6 feet of sand at 2,261 feet in No. 3 W. A. Smith, Section 36-15-17, and bailing to test 5 feet of sand at 2,294 feet in No. S-3 Wells, Section 25-15-17.

Green and others set 10-inch casing at 51 feet in No. 1 LaGrone, Section 30-15-16; Herman & Jackson bailing to test 18 feet of sand at 2,304 feet in No. 1 Shirey, Section 36-16-17.

The Magnolia Petroleum Co. set 6-inch casing at 2,270 feet in No. 2 Brown, Section 26-15-17; waiting on standard rig with 500 feet of oil and 3 feet of sand in hole at 2,273 feet in No. B-8 Smith, Section 31-15-16.

Morefield and others set 8-inch casing at 2,250 feet and have 6 feet of sand at 2,291 feet in No. 1 McDaniels, Section 28-14-17; R. B. Nelson set 6-inch casing at 2,273 feet in No. 3 Jeffus, Section 26-15-17; Stumph & Todd set 6-inch casing at 2,262 feet in No. 3 LaGrone, Section 30-15-16.

Sutton and others are fishing for three joints or drill stem at 1,300 feet in No. 1 Ebenezer, Section 20-15-16; Weaver & Smithwick, bailing to test broken formation at 2,465 feet in No. 1 Tuberville, Section 17-15-16.

(Continued on Page 92)

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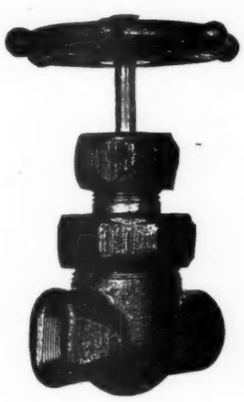

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Fields of the Central West

By Whit

Ohio Oil Co. has 100-bbl. and 20-bbl wells in Wood County, Ohio; L. Keiser and others 25-bbl. producer. Bath Township Oil Co. gets 50-bbl. flush well in Hancock County. Harmon-Miller Oil Co., 35 bbls. Payne Field, Paulding County. Ohio Oil Co. has 20-bbl. completion in Wayne County.

FINDLAY, Ohio, Aug. 18.—A general survey of the Central West Field for the week indicates by the number of new completions that there is no real let up in development work. At least it is not noticeable to the various scouts that wander over the field from day to day. The talk has been for some time that with the completion of wells drilling, work would show a heavy falling off, but this has not proven true yet, and, by the way the operators are going after it, it looks as though the latter half of 1924 will be fully as active as the first half. Some fields are showing a decline, but others are remaining steady or showing slight increase.

A survey of the development work now going on shows Wood County leading in the Lima Field, of northwestern Ohio, Wayne County, in central Ohio; Pike and Gibson Counties in Indiana; and Wabash County, in Illinois. These same counties have maintained the greater activity throughout the Central West Field, with the exception of several Kentucky Counties.

Lima Field

A large amount of leasing is being done in all parts of the old Lima Field of northwestern Ohio. This is not confined to the abandoned territory, but on the outer edges to the north, west and south. The eastern direction is not attracting leasers, as the Trenton dips rapidly in that direction, the chances are too hazardous. The Tiffin Field of Seneca County is the farthest eastern portion of the Lima Field that has proven productive. The Trenton is found at depths of from 1,450 to 1,750 feet. The oil is found, that is, the deeper pay, as far as 400 feet in the Trenton, and the wells are long lived producers.

Tht past couple of years have shown some very interesting extension to the old fields of the Trenton Rock. Among the extensions were the finding of commercial production of both oil and gas in the southern part of Mercer County, known as the Fort Recovery and Coldwater districts, to the south of the old field. Then came the opening of the Darke County area, then Shelby County, adjoining, and the latest addition to the south side of the old field, was made in Hardin County, in the vicinity of Guffey, in McDonald Township, where wells starting as high as 50 bbls. flush, have been opened up, and also small production has been found in Marion Township, of Hardin County.

To the north of the old field, the most important development is centered around the town of Payne, in western Paulding County, and but about 3 miles east of the Ohio-Indiana State line. This new addition is also furnishing some very fine wells, ranging from small ones to as high as 100 bbls. flush. The pool is close to 1 mile west of Payne, but the most important find was that made northeast of Payne on the Lamb farm, and over 2 miles away from the pool, which looks as though the entire intervening territory will prove worth drilling. The past few weeks have seen the leasing of much land on both sides of the State line. Many years ago wells were drilled along the State line, but that was during the days the monster gushers were being brought in daily in Wood, Hancock, Allen, Auglaize, Mercer, Sandusky and other fields, and the showing of the State line wells was not great enough to encourage further work at that time, and the prospective field was forgotten, until the U. S. A. Oil Co. put down its test on the King farm, 1 mile or so west of Payne, and got an excellent producer. The supposition of operators, that is a few of them, that the finding of oil in Paulding County, will mean that other productive areas will be found to the north.

Butler Township, of Mercer County, in the vicinity of Coldwater, is attracting much attention, owing to the nice gas production being found there and also a good production of oil, and for the past few months, that territory has drawn quite a number of oil men to it. In this township, H. C. Craft has drilled in No. 1 on the John Ables farm, Section 3, with a fair show of oil and nice gas volume. There are close to 10 wells drilling. In Hopewell Township, same county, the June Oil Co.'s No. 3, on the northeast corner of the Ed F. Hellworth farm, Section 28, is reported at 5 bbls. In Union Township, same county, the Watson Oil Co.'s No. 7, on the George Roebuck, Section 8, pumped 10 bbls.

Ohio Company Gets 100-bbl. Well

The sensation of the week in the Lima Field, was the completion by the Ohio Oil Co. of No. 18 on the northwest corner of the Sol Smith farm, Section 8, Bloom Township, Wood County, and close to Cygnet, which showed a production of 100 bbls. from a depth of 1,453 feet, or around 300 feet in the Trenton.

In Liberty Township, Wood County, the Ohio Oil Co.'s No. 20, on the John Drace, Sr., farm, Section 24, pumped 20 bbls. at 1,430 feet, while Scheidt, Hamann & Huston's No. 1 on the southwest corner of the W. M. Cookson farm, Section 9, pumped 5 bbls.

In Freedom Township, Wood County, near Pemberville, the Ohio Oil Co.'s No. 22 on the H. & J. C. Bruning, Section 27, pumped 15 bbls. Top of Trenton was found at 1,191 feet and drilled 103 feet in, to a total depth of 1,294 feet.

In Lake Township, Wood County, L. Keiser and others' No. 4 on the southwest corner of the Phillip Young farm, Section 26, pumped 25 bbls. at 1,335 feet. Charles F. Zeising and others' No. 4 on the Emil Brandt, Section 36, pumped 4 bbls. at 1,309 feet.

Another interesting well for the week was the Bath Township Oil Co.'s second test on the Anna Henry farm, Section 14, Pleasants Township, Hancock County, and located 1,120 feet from the south line and 50 feet from the west line of the farm, which showed a flush of 50 bbls. In Biglick Township, same county, the Cochran-Moore Oil & Gas Co.'s No. 1 on the southwest corner of the C. Saltzman farm, Section 16, pumped 6 bbls.

In Bath Township, Allen County, Carman, Botking and others' No. 1 on the C. E. Plaugher farm, Section 10, pumped 8 bbls. Top of Trenton was found at 1,303 feet and oil at 38 feet in.

In Moulton Township, Auglaize County, Grover Lynch and others' test on the Alvin Myers farm, Section 27, located 900 feet from the south line and 600 feet from the east line of the lease, pumped 20 bbls.

In Woodville Township, Sandusky County, D. Molyard and others' No. 4 George F. Sandwich farm, Section 16, pumped 10 bbls. at 1,287 feet, and the Interstate Operating Co.'s No. 9, on the southwest corner of the Ed Overmyer, Section 22, pumped 10 bbls. from 1,284 feet.

In York Township, Van Wert County, the Van Vleck-Stowe Oil Co.'s No. 10, on the northwest corner of the Ben F. Pollock farm, Section 1, is a salt water well, but showing some oil at 1,238 feet.

In Elmore Field

In the Elmore Field, on the north side of Portage River, in advance to the north and west of the pool, which is located 1 mile east of Elmore, O. L. Luckey has drilled in No. 2 on his own farm, located 200 feet from the south line and 500 feet from the west line of the farm, the well producing 16 bbls. from a depth of 1,317 feet. The well is directly north of Elmore, along the macadamized highway and the only well of consequence found anywhere close to Elmore, east of the Elmore-Toledo highway and north of the river. It may bring about the drilling of other wells northward from the river, in hopes of connecting with the old development several miles farther north in Allen and Benton Township of the same county. In the pool 1 mile southeast of Elmore, in Harris Township, the Zorn-Hornung Oil Co.'s No. 10 on the Belle Clay farm, Section 20, pumped 10 bbls. from 1,300 feet.

In Benton Township, Paulding County, the Harmon-Miller Oil Co.'s second well on the Charles Graham farm, Section 4, in the heart of the Payne Pool, west of that town, is reported at 35 bbls. flush at 1,460 feet. J. H. Harmon, a well known operator of Mansfield, Ohio, is starting a test well on the Jacob King farm a half mile south of Payne, in Section 2, Benton Township, and located close to where a big well was drilled some 25 years ago, on the Shellenberger farm, and will be a very interesting test, being some distance away from the pool west of Payne.

Five new drilling wells have started up in the new Payne Field. Six new locations for wells were staked out, four in Benton Township, and two in Harrison Township. These wells will start work at once. Many leases are changing hands, the past week being the most active. Five new wells should be completed within a week or so. The W. C. H. Oil Co.'s well on the Yearling farm, Section 4, Benton Township, is reported making around 40 bbls. a day.

Indiana-Illinois

No completions were reported for the week from the Indiana Fields, and the Illinois Field did but little better.

In Robinson Township, Crawford County, in the Illinois Field, S. D. Jessup drilled a dry hole in a test on the northwest corner of the H. Morrison farm, Section 27. In Honey Creek Township, McDowell & Galey's No. 10 J. W. Rich, Section 4, pumped 10 bbls. at 1,013 feet.

In Allison Township, Lawrence County, the Ohio Oil Co. abandoned No. 1 on the M. E. Legg farm, Section 22.

Central Ohio

The most important well of the week in the Central Ohio Field was the Ohio Oil Co.'s test on the James Snyder farm, Section 15, Wooster Township, Wayne County, that came in a 20-bbl. producer from the deep Clinton sand. This company's well several days ago on the Peter Skelly, Section 21, same township, showed 80 bbls. flush, and these wells show good staying qualities. Same company has made a location for No. 1 on the L. N. and Maude Martin 40 acres, Section 21, same township.

In Chippewa Township, Wayne County, in the Wooster Field, the East Ohio Gas Co. drilled a light gas well in No. 1 H. Steiner farm, Section 28, and drilling No. 1 on the T. E. Steiner 31 acres, Section 20, and made a location for No. 1 on the William Bitner 65 acres, Section 16. In Wayne Township, the Logan Gas Co. drilled in a fair gas well at No. 1 S. A. Showalter farm, Section 5. In Cannan Township, Arthur & Mills started No. 1 on the Edward Miller 3 acres, in Section 22. Bert Harder and others' No. 3 on the George Reader 81 acres, Section 15, is reported to have pumped 3 bbls. of oil the first 24 hours. The Ohio Fuel Gas Co. abandoned its location on the R. O. Glierns farm, Section 34.

Four new gas wells have been drilled in the Shiloh district of Cass Township, Richland County. The Greenwich Gas & Oil Co. brought in Nos. 7 and 8 on the Dr. H. R. Noble farm, for better than 1,000,000 feet each. Bricker Brothers' No. 2 Lloyd Noble is also an average gas well as is Erones & Hart's No. 6 H. S. Maring farm. Same firm is drilling No. 7 same farm, and the Greenwich Gas & Oil Co. is drilling No. 9 Novle, and Bicker Brothers are drilling No. 3 Lloyd Noble farm.

The Ohio Fuel Gas Co. staked a location for a test well on the B. F. Wells 80 acres, Section 20, Clinton Township, Vinton County, and the only new well under way in that county, which a couple of years ago was an active field.

In Monroe Township, Holmes County, one of the most active sections of Central Ohio at this time, has been given a boost by the completion by the East Ohio Gas Co. of a well on the William A. Smith farm, Section 4, with a volume of 5,000,000 feet of gas.

This company is drilling a test on the Charles Shanks 149 acres, Section 10, and made a location for No. 1 on the M. B. Bird 50 acres, Section 8. The Central Ohio Gas Co. brought in a very good gas well in No. 1 Oscar Korns, Section 3, and made a location for No. 2 on the Oscar Korns 100 acres, Section 3. The Ohio Fuel Gas Co. has a location for No. 1 Charles Barnes' 20 acres, Section 7, and drilling No. 2 same farm. Same company has locations made for Nos. 3 and 4, also for Nos. 1 and 3 on the B. P. and Lenora Uhl 100 acres, Section 15, and drilling No. 2 same farm. In Hardy Township, the Logan Gas Co. made a location for No. 1 on the Scott V. Mast 40 acres, Section 9. In Ripley Township, same county, the East Ohio Gas Co. has a light gas well in No. 3 E. & M. Scott farm, Section 1.

In Coal Township, Jackson County, the Ohio Fuel Supply Co. found a good gas well at a test on the Fred Pugh, Section 34, and made a location for a test on the G. W. Roach 14 acres, Section 36. In Lick Township, same county, the same company has a nice gas well in No. 1 on the Grace Miller farm, Section 36, and made a location for a test on the Guy Smales 40 acres, Section 23.

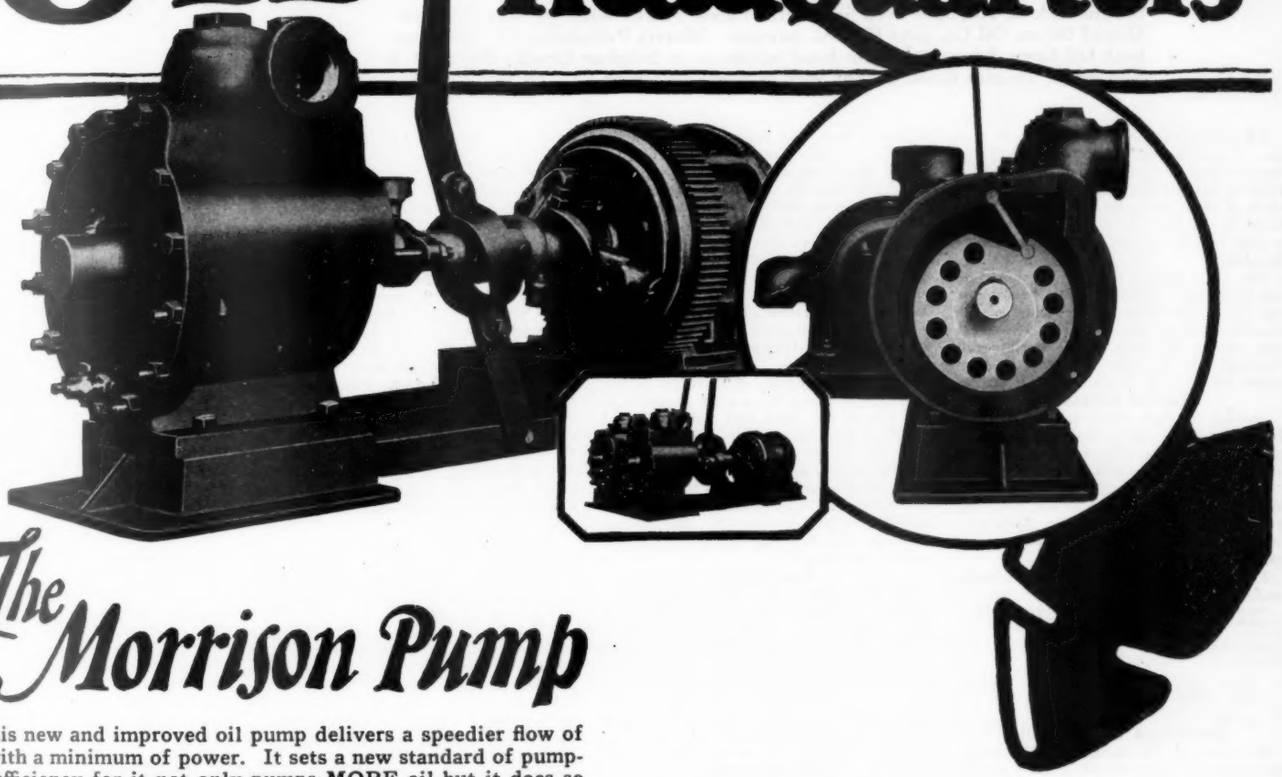
Athens County

In Carthage Township, Athens County, the Logan Gas Co. brought in a fair gas well at a test on the J. W. Kincaide farm, Section 9, and a dry hole in No. 1 John Archer farm, Section 24. This company made a location for a second well on the J. W. Kincaide farm. Sweaney and others' No. 1 on the H. E. Allen 202 acres, Section 30, is a 500,000 foot gas well from the Salt sand, while the Jay Oil & Gas Co. drilled a very light gas well in No. 3 on the J. E. Bailey 42 acres, Section 5, also in the Salt sand.

In Waterloo Township, Athens County, the Logan Gas Co.'s second test on the

(Continued on Page 78)

Oil Equipment Headquarters



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"OIL EQUIPMENT HEADQUARTERS"

West Kentucky—Tennessee

By Vern T. Whitney

McClintock & Raydure well in Kettle Creek starts with 10 bbls. an hour. Daniel Boone Oil Co. gets 150-bbl. pumper. Morris Petroleum Co. and Combest Oil Corp. have 10-bbl.-an-hour producer in Sulphur Creek; Raydure & Son same; Zeigler Bros., 35-bbl. well in Barren County.

LEXINGTON, Ky., Aug. 18.—A survey of the Kentucky oil fields, both the eastern and western divisions, shows a total of 245 drilling wells and rigs at the close of the week. The western division leads in the number of active drills with a total of 133, against 112 in the eastern division.

The most active counties at this time are Lawrence, Johnson and Magoffin, or the North and South Weir fields, of the eastern division, where 65 rigs are working, and in Warren, Allen, Barren and Cumberland, in the western division, where 99 drills are making hole.

Western Kentucky

During the past week, in the Western Kentucky Field, there were a total of 23 completions, 16 producers, with a flush of 799 bbls., six dry holes and one gasser. Compared with the previous week, these figures show one less completion, four less producers, 294 bbls. more in flush production, two less dry holes and one more gasser.

The wells were distributed by counties as follows:

County—	Comp.	Wells	Prod.	Dry	Gas
Barren	7	6	107	0	1
Allen	6	4	25	2	0
Cumberland-Monroe	6	4	650	2	0
Warren	4	2	17	2	0
Total	23	16	799	6	1
Last week	24	20	505	4	0
Difference	1	4	294	2	1

Cumberland County Wells

In spite of the continued depression, operators are going ahead in the Cumberland County Field. During the week six new wells were projected for the immediate future and all by outsiders who have not heretofore been operating in this field. One Indianapolis, two Ohio, and one Pittsburgh concern have purchased property and are arranging to begin operations before fall.

The Gilbert test on Brush Creek, being drilled by Grant, Curtis & Co., is hung up owing to an accident to the rig, but will be repaired at once, and drilling continued.

McClintock & Raydure's No. 4 Anderson, on Kettle Creek, started flowing at the rate of 10 bbls. an hour Saturday, at from 605 to 623 feet, 100 feet below the Pencil Cave, in the Modoc sand.

The McClintock Oil Co.'s No. 7 Bud Kerr, Kettle Creek, has a good showing in a brown quartz sand at 1,225 feet, or 660 feet below the Pencil Cave. This is closer to the Pencil Cave than this sand is found in the few other wells that have gone to it which might indicate a deep structure. They have drilled through a very hard cap and are just in the top of the sand and consider the show very promising.

The Lawrence Coffee No. 3, of the Young Oil Co., on the Monroe County side of Kettle Creek, is flowing at 40 feet below the Pencil Cave, in the Judio sand, and the lease manager is borrowing tanks wherever he can, trying to take care of the oil. This has been a very sensational well. It came in making 250 bbls. last week as the top of the sand was touched and after making its initial flow settled down to about 60 bbls. This gave the company a chance to go into the sand deeper and it drilled 20 feet when the flow compelled it to stop and it is now making over 200 bbls. daily.

The Daniel Boone Oil Co.'s No. 7 Widow Logan was brought in the latter part of the week and after making its initial flow was put on the pump and made 150 bbls. in 24 hours. It got the Pencil Cave at 483 feet and right under it the Judio sand filled the hole up 50 feet; at 570 feet the Modoc was struck and it filled up another 50 feet, and when drilled 10 feet in, at 580 feet, the hole filled up 200 feet and soon after flowed. The drill was halted at 606 feet, and on late test the well made 8½ bbls. an hour for eight hours straight, and is still flowing.

No. 3 Cleve Blythe, of Raydure, Kettle Creek, is showing for a good producer in the top of the sand and will be tested within a few days. This well is not far from No. 1 on the Blythe, which has proved to be one of the best wells in the field, making, since the pipe line came in in November, 1923, around 1,500 bbls. a month until prices went off. Banta's No. 2 Turn Smith, same district, was reported abandoned.

Bear Creek

F. F. Smith's No. 1, at Julia Bow Hollow, of Bear Creek, of the Oil Fork Development Co., is being plugged back to the Lower Sunnybrook sand, where its best show occurred, and will be shot. It looks as if it will make a small pumper and, if so, will stretch the Bear Creek Field slightly. Wilcox Bros.' No. 1 Bob Phares, has been plugged and abandoned as dry at 250 feet below the Pencil Cave.

Galloway Creek

No. 1 Hunter Short, on Galloway Creek, being developed by Combest & Morris, is showing for 5 bbls. naturally at 300 feet and will be shot at once. This is the well that made the sensational flow in the Upper Sunnybrook at 105 feet this spring and had its oil taken from it by the No. 2, same lease. The present production is in the Anderson sand.

Sulphur Creek

No. 1 Mrs. McKinley Coop, at Sulphur Creek, of Raydure & Son, is making 10 bbls. an hour naturally, in the Modoc sand, 65 feet below the Pencil Cave. This well is on the structure where the first big well of recent years, No. 1 G. W. Coop, came in and on which are the Huddleston and Riddle leases, among the best in the county.

The Morris Petroleum Co. and the Combest Oil Corp. finished their No. 1 on the Huddleston-Payne lease, on the same structure as the Mrs. Coop for 10 bbls. an hour in the same horizon, the Modoc sand. This and the Coop well give the Sulphur Creek area a healthy stretch and will renew attention to a section that was injured by the disastrous handling of one or two of its producing leases.

Whitemeyer and associates are preparing to start a test on the west side of the Cumberland River opposite the mouth of Broad Branch; and W. S. Raydure will drill on Broad Branch on the eastern side. McIntyre & Co., of Indiana, have moved a rig onto the J. A. Graves farm, on the western side of the Cumberland River from the old Salt Lick Bend Pool that produced so many wells in 1901-1908.

Barren County Completions

Barren County showed seven completions, six producers and one gasser. Ziegler Bros.' No. 4 on the Dreenan was the feature producer of the week, making 35 bbls. from the shallow depth of 204 feet, in a stray sand above the shale. This well is the first to find production in the Mississippian formation in Barren County and adds considerable value to properties in the Emery-Moore Pool. In the same district, the Carter Oil Co. finished its No. 6 Wininger for 25 bbls. flush at 528 feet. Casing was set at 141 feet. The sand from 518 to 526 feet was treated to a 30-quart shot; Starr Oil Co.'s No. 8 Ritchie started off at 12 bbls. after a 30-quart shot at 518 feet. Casing was set at 140 feet; Fred Moore's No. 3 McCubbin pumped 20 bbls. after a 30-quart shot at 510 feet. Casing was set at 143 feet.

Several miles west of Glasgow, near the railroad station, the wildcat on the Porter farm, drilled by Lewis J. Emery, Jr., & Sons Co., is a good gasser at 551 feet. Shale was found from 346 to 416 feet and the gas sand was struck at 486 feet.

Fred Williams' initial test on the Hutchinson farm, 3 miles northeast of Glasgow, near Coral Hill, was reported to be good for 5 bbls. at 573 feet. Casing was set at 160 feet.

About 10 miles southeast of Glasgow, the Baird Oil Co. is reported to have a 10-bbl. starter in its No. 3 Kinslow in a new sand for that district at 185 feet below the shale. This is the same formation being drilled to in the Emery-Moore Pool and may mean that this deeper pay extends over a greater portion of the county. This test also struck a good sand that carried quite a bit of free oil immediately below the shale, the regular pay in that district. Casing was set at 160 feet.

Allen County Work

Operations in the Allen County Field are dragging to a great extent and only two new locations were staked off during the week, both being in the southwestern district.

The best completion was that of H. B. Bastrus and associates in their initial test on the W. B. Carver tract, in the vicinity of the Wheat gusher, on Trammel Creek. It started off at 12 bbls. at approximately 276 feet, immediately below the shale. These same parties started No. 2 Carver, and No. 2 on the Albert Lyles in the same neighborhood.

In the Kerley district, Work & Co.'s No. 3 on the E. Hinton place is a 3-bbl. pumper at 350 feet.

In the Bay's Fork district, near the Warren County line, the West Penn Oil Syndicate is credited with a dry hole at 432 feet in No. 11 Peerson.

J. G. Esslinger's No. 3 G. W. Willoughby, 9 miles west of Scottsville, in the Satterfield Pool, made a 7-bbl. pumper at 442 feet.

At Gainesville, north of Scottsville, Will Speck, receiver, drilled in a duster on No. 4 Frank Martin at 420 feet. In the same area, McMullen & Raegle's No. 5 J. L. Brown was reported good for 3 bbls. at 427 feet.

Warren County Completions

Two dry holes and two small pumpers is the week's record for Warren County. Drilling operations are dropping off to a large degree in this county and little encouragement is in sight.

The Harnahan & Onsel Bros. Oil Co., of Rising Sun, Ohio, finished its initial well in the Warren County Field. It was No. 3 Ora S. Davenport, which started off at 12 bbls. at 435 feet, Mississippian formation. This property lies in the heart of the Davenport Pool and was purchased by the company from the Huntington-Oklahoma Oil Syndicate.

In the same vicinity, T. A. Sheridan's Nos. 2 and 3 on the G. Davenport 1,000 acres were both dusters at 925 and 850 feet, respectively. These two holes will probably be carried on down to the sand below the shale when market conditions improve.

The Ohio Fuel Oil Co.'s No. 7 Garrett, in the northeast extension of the Davenport Pool, made 5 bbls. after a 40-quart shot in 9 feet of sand. The total depth was 1,112 feet.

Owensboro District

O. C. Boop moved a rig onto the A. Stewart 174 acres, 400 feet west of No. 1 Taylor and will start immediate drilling operations; the Panther Creek Oil Co. is starting No. 8 R. M. Miller, 400 feet west of No. 7; Dearborn Oil Co. is rigging up No. 3 W. T. P. Barker, 400 fee north of No. 2; Randolph & Stevenson's No. 1 M. Knott was drilling at 300 feet; Bert Thompson's No. 1 Barlow 40 acres was drilling at 350 feet; Leeper Oil Co.'s No. 1 Collier was down 250 feet; Hartman & Young were moving a rig to the J. H. Milligan 108 acres; C. E. Daugherty's No. 1 Owen Ward, Dare King section, has tools on location; same party's No. 1 W. T. Bickett, Hurricane area, was making progress at 450 feet; Leeper Oil Co.'s No. 1 Dr. Garrett was making hole at 150 feet; I. N. Harkless' No. 1 Albert Payne 68 acres, was down 650 feet and drilling; Nutty & Pyle's Nos. 2 and 7 F. V. Miller are showing water; Wood Oil Co. has let a contract to drill a well on the Harrison farm north of the Oat Neal and also for test near the Gorin test and one near Adair Station; C. A. Leeper has let contract for two wells, one each on the Bailey and A. Stewart 55-acre tracts.

Eastern Kentucky

Great improvements are noticeable in the Big Sandy Valley division of the Eastern Kentucky fields, especially in Lawrence, Johnson, Magoffin, Floyd and Elliott Counties. New highways are under construction that will be of great help to the operator located a long distance from railroads. The Mayo Trail has now reached a point from Ashland to the Burns farm, about 1½ miles south of Louisa, and the grading is expected to be completed as far south as Paintsville during September. The trail, now macadamized from Ashland to the Burns farm, has been opened to traffic, and gives an excellent road from Louis north to Ashland. When completed the Mayo Trail will give the public a good highway from Ashland south through Cumberland Gap to Florida.

Road improvement has recently been made from Louisa to the main camp of the Union Gas & Oil Co., at Ayresville, approximately 28 miles. This camp is one of the largest in Kentucky, and during the last year shows great improvements, by the construction of a school house and church building combined, also ice plant, electric light plant, water works and about all the conveniences of a modern city. Ed Holland, superintendent of the Union Co., has taken considerable pride in his endeavor to make everything as homelike as possible for the employes.

The Union Gas & Oil Co., under the supervision of its president, Arthur B. Ayres, and Superintendent Holland, have made a record in development work. To the close of July this company has completed a total of 538 wells. Of this number 462 were oil wells, 69 gas wells and but 7 dry holes.

The gas wells are producing approximately 150,000,000 feet of gas monthly with a ready market and close around 90,000 bbls. of oil monthly. This company recently brought in both oil and gas production on a block of 17,000 acres of leases on the north and east sides of the North Weir Sand Field. The company holds leases on 126 farms in the North Weir Field, with oil production on 60 and gas wells on 39 farms, a total of 90 farms producing oil and gas. The

(Continued on Page 78)

Oil Companies Re-Roofing Tanks To Reduce Fire Hazard

By Paul Wagner
STAFF REPRESENTATIVE

HOUSTON, June 14 IN CONNECTION with a series of four tank fires experienced by the Humble Oil & Refining Co., in the period from May 20 to June 2, last, the interesting point is developed that in only one case was the damaged tank of steel-roof, gas-tight construction.

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55's with "Wilson Welded" roofs owned by Marland Refining Co., Texas City, Texas

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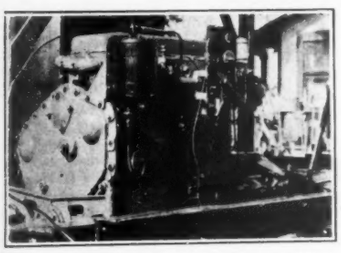
EQUIPMENT AND SUPPLIES

USE GASOLINE ENGINE TO DRILL TULSA WELL

The Wellman-Seaver-Morgan Co., of Cleveland, Ohio, makers of gas and gasoline engines, recently installed a gasoline engine for drilling at the Westman-Hartman well, near Bruner station, west of Tulsa. The engine, while of the heavy duty industrial type, is designed along automotive lines. All auxiliary equipment also is designed along standard automotive lines, thus facilitating the work of caring for the engine and other parts necessary for its operation.

The engine has a maximum of 76 h. p. at 1,600 r. p. m. It is flexible in power and speed and accommodates itself to all forms of work necessary in drilling wells, bailing, fishing, setting casing, etc. It can also be used for pumping and cleaning out. The engine has four cylinders 4¾ by 6 inches, with overhead valves, and medium high compression. The crankshaft is made of forged chrome nickel



Wellman-Seaver-Morgan drilling engine on Westman-Hartman well, near Bruner station, west of Tulsa.

steel, double heat treated. The rods are likewise double heat treated and made of forged open hearth 30-40 steel. The valves are of silchrome steel.

The cylinders are made in sleeve form of semi-steel. They can be replaced quickly at low cost without tearing the engine down. Every bearing in the engine, including the overhead rocker arms and the ball and socket joints on the ends of the push rods, is lubricated by oil under pressure from a gear pump in the base which operates as long as the engine is in operation. There are two inspection plates on each side of the crank case.

The engine is fitted with a 12-volt Leece-Neville generator and starting motor, a 12-volt Willard 90-ampere hour storage battery, Stromberg 1¾-inch carburetor, Splitdorf SS-4 aircraft magneto, Stewart vacuum tank and strainer. It is complete in its equipment, even to the panel board, where all gauges and indicators are fixed.

During 14 days actual working time the engine was operated at a cost of $6.60 per day.

FEED LUBRICATOR LEAFLET

Manzel Brothers, of Buffalo, N. Y., have issued a leaflet describing the Manzel force feed lubricators for oil country engines. The various types are listed and the rugged character of the construction of the Manzel lubricators is emphasized. They are particularly adaptable to the lubrication of the cylinders of engines, pumps, air compressors and other articles of oil field equipment.

NAMED TRACTOR DISTRIBUTOR

The Holt Manufacturing Co., Peoria, Ill., announces the appointment of the Holt Texas Equipment Co., Inc., Dallas, Tex., as distributor for the Holt caterpillar tractors in the State of Texas. R. S. Lowe is the president of the distributing company. A complete stock of tractors and service parts are carried at the Dallas concern's shop.

OIL DRILLING MATERIAL DEMAND BRIGHT SPOT IN THE STEEL TRADE

By B. E. V. Luty

PITTSBURGH, Pa., Aug. 18.—It would be very easy to attach more importance to the improvement in the steel trade than is really warranted. The industry has merely rounded the turn in the volume of buying and of production. The improvement is very gradual, indeed, whereas the slump in buying and production has been remarkably sharp. Buying was at less than one-third as heavy a rate in May as in January, while production was less than half as great in July as in March. On the other hand, there is merely a slight increase in buying, a trifle more in June than in May and a little more still in July, while as to production there was a trifle more in the second half of July than in the first half, and mill operations have gained just a perceptible amount more since the first of this month.

As it takes two to make a bargain, while the mills were running out of orders buyers were likewise running out of supplies, but as consumption had decreased they did not need to resume buying on a large scale.

Pipe Mills Busy

The foregoing is as to the steel business in general. The pipe mills are in a class by themselves. Capacity relative to normal demand is smaller in pipe than in most finished steel products, particularly plates, but also in sheets, wire products, etc., while furthermore the demand for tubular goods has been particularly good. Right along this year there has been more buying of oil drilling material, casing, drive pipe, rotary drill pipe, tubing, etc., than would be expected in view of the general talk about oil production being excessive. Then there has been quite a fair demand for merchant pipe, involved in building operations, etc., though the mills do not seem to have been well satisfied with this demand. Finally, line pipe buying began in May, in a limited way, growing in June and July. In June the pipe mills were down to an operation of 60 to 65 per cent, which looked bad for the pipe mills, but made a good showing compared with most other branches of the finished steel trade. Then, on account of the line pipe buying, pipe mill operations increased, and lately they have been running along at fully 75 per cent, with pretty good prospects that this rate will continue for some time to come.

While declines from last year's prices have occurred in most finished steel lines, $15 a ton or more in bands, hoops and hot rolled strips, $10 a ton in plates and smaller amounts in various other lines, there is no prospect of any decline in tubular goods prices as the mills are in such strong position. Their situation is shown by the fact that bids on line pipe orders have been running quite stiff of late, whereas when the pipe mills want to induce business line pipe is the article selected, for a cut price can be made on it without the general market being affected. If merchant pipe is cut to any extent the whole market soon yields and new lists are issued. Few if any of the line pipe orders, it appears, were taken at large concessions, and in the past fortnight some mills have quoted over the regular price, quoting the retailers' rather than the jobbers' figures, as a signal that they would prefer to let the business go to competitors.

Pipe Contracts Let

The Andean line, South America, is understood to have let, a few days ago, 350 miles of 10-inch, making 40,000 or 45,000 tons. Benedum-Trees interests are negotiating for a 60-mile gas line, which will probably take 14-inch or 16-inch, some 6,000 or 8,000 tons.

The Steel Corp.'s unfilled tonnage decreased 75,433 tons in July against decreases of 365,584 tons in June and 580,358 tons in May. The smaller decrease was brought about chiefly by shipments being lighter, but there was also some increase in buying. May was the low month in bookings, orders representing scarcely more than 30 per cent of the capacity, while in July shipments were about 45 per cent and bookings about 40 per cent, the 5 per cent difference being the 75,433 tons loss from the order book.

Steel ingot production in July was about 1,869,416 gross tons, of 71,901 tons daily, representing about 41.4 per cent of capacity. The production rate decreased by about one-eighth from June to July, but there was a swing around in July and production is now at nearer 50 per cent than 45 per cent of capacity.

The steel market continues to show a sagging or slipping tendency in spots. It can hardly be said that there is a general decline, for the market has been slipping at least a little bit since June of last year, yet on the whole it has declined but little, and pipe, rails, and tin plate have not declined at all.

Again the trade attributes a decline in the market price of automobile sheets to buying by the Ford Motor Co. A year ago the market was 5.35 cents for 22 gauge, full finish. Late in the old year and early this year prices were shaded to Ford, the market finally working down to 5.10 cents, where it held for some time. Lately Ford bought at 4.90 cents and down to 4.75 cents, whereupon practically all mills, including the Steel Corp., reduced to 4.75 cents. Black sheets are steady at 3.50 cents and galvanized fairly steady at 4.60 cents, blue annealed being 2.60 cents to 2.70 cents.

Forging billets are quiet, but the $43 price seems to be quite well maintained.

Plates remain at 2.00 cents, Pittsburgh, on orders of any size, with 2.10 cents or 2.15 cents quoted on very small orders. Plate mills seem to have a good bit of business in connection with oil storage tanks but as the orders have been highly competitive details are withheld.

MOTOR TRUCK SHOW IN CHICAGO, OCT. 21, FIRST BY INDUSTRY

Th first national motor transportation show in the history of the industry will be held in Chicago, October 21-27, at the American Exposition Palace on Lake Shore Drive, recently completed at a cost of $10,000,000. It is to be held under the auspices of the Motor Truck Industries, Inc., which represents the leading truck manufacturers.

The show is to be educational in scope and is intended to be of real practical value to those who attend. A program of demonstration is to be held daily in a large field adjoining the exposition building. William Hallanger, general manager of Motor Truck Industries, is now planning the program. All phases of truck performance are to be thoroughly exhibited. Various makes of trucks will be used so every branch of motor truck transportation will be included.

An effort will be made to restrict admission to those genuinely interested in motor truck transportation. Tickets and invitations are to be sent to truck and automobile dealers, fleet owners and owners of bus lines. Although the show room has an area of close to 70,000 square feet, it is felt the practical value of the exhibit to fleet owners and others in the truck business would be greatly detracted from if the doors were open to the general public.

INCREASING OUTPUT OF POWER SCRAPERS

The Miami Fordson one-man power scraper has been manufactured by the Miami Trailer Scraper Co. of Troy, Ohio, for the past year and at the present time they are increasing their production to handle the growing volume of business.

The scraper is designed exclusively for the Fordson tractor. The power winch is constructed so it bolts to the rear axle of the tractor by means of a U-bolt. This winch is made of cast steel with a worm and gear to operate the revolving drum. The gearing is driven by a friction clutch which power is taken from the belt pulley arm on the tractor to the revolving drum on the winch. To the drum is attached the ⅜-inch cable which elevates the scoop to any desired position.

When loading the bottom of the pan is almost parallel with the ground and remains in the same relative position until fully loaded. This reduces the drawbar pull of the scraper about 50 per cent. It also permits the scoop to fill to capacity every trip. The operator driver forward, at the same time holding the control lever at his right. The pan is instantly lowered to the desired depth. As soon as the pan is completely filled, the operator pushes forward on the control lever, thereby engaging the friction clutch. This causes the winch to operate and by means of the cable, elevates the front of the pan to about a 15-degree angle. The bottom of the pan at the rear is then about 9 inches from the ground.

In this position the driver runs to the dumping point in either second or high speed at the rate of from two to six miles per hour. The pan is so designed that the dirt cannot roll off either at the front or rear.

RED LEAD GRAPHITE PRIMER ON MARKET

The Joseph Dixon Crucible Co., Jersey City, N. J., manufacturers of Dixon's silica-graphite paint, has placed on the market another paint product known as Dixon's red lead-graphite primer. For over a year it has been subjected to tests under usual conditions by practical painters and reported meeting the most rigid requirements.

The pigment of this primer consists of flake silica-graphite, red lead and high-grade oxide of iron. The vehicle is described as the best boiled linseed oil obtainable. The primer, it is said, will dry perfectly in 22 hours under normal conditions, and will cover approximately 400 square feet to the gallon on metal surfaces.

Dixon's red lead-graphite primer claims the good qualities of red lead together with the well-known water-repellant advantages of a high-grade silica-graphite paint. Under application it lessens the "drag" on the painter's arm and is not so severe on the wearing qualities of the brush. The manufacturers say it will not chip nor scale off, has greater covering power than red lead, and costs considerably less, fully meeting the needs of those who prefer a red lead paint for priming coats.

DOUBLE THRUST WORM BOX

The W. A. Jones Foundry & Machine Co., Chicago, has just placed on the market a new product, known as the Jones double thrust worm box. This box provides an accurate and rigid support for the worm shaft and holds a liberal supply of oil in which the worm operates. Finished thrust washers are located at both ends of the worm. The bearings are babbitted and bored and faced on the ends. The boxes, now made in standard sizes, are described with the gears in the company's catalog No. 29, entitled "Jones Gears," just off the press.

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REGISTERED U. S. PAT. OFF.

Stands for Heavy Duty

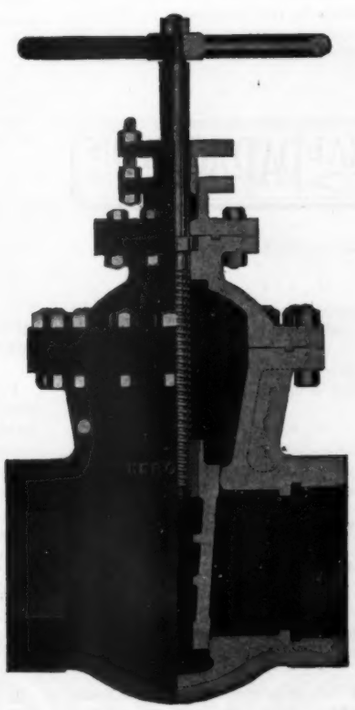
It is easy to understand why KEROTEST Valves and Fittings stand up under the strains of the most secure oil field service. Merely examine its structure and methods of manufacture.

Because of its greater penetrability than water—kerosene is used for testing. High grade Ilmenite steel is used for the walls of the valve. It is machined with precision to jigs and templates, assuring absolute uniformity and interchangeability.

From the standpoint of strength and mechanical construction, KEROTEST Valves and Fittings have no peer. Write for the KEROTEST Catalogue that goes into the details more fully.

PITTSBURGH REINFORCED BRAZING AND MACHINE COMPANY
Pittsburgh, Pa.

KEROTEST



Carried in Stock and Sold by:

Norvell-Wilder Hardware Co., Houston, Beaumont, Shreveport

Grinnell Company of the Pacific, Los Angeles, San Francisco

Oil Well Supply Company Pittsburgh New York Tampico London

MEN KNOWN IN OILDOM

George C. Schaffer

One of the best known equipment men dealing with the oil industry is George C. Schaffer, of the Novo Engine Company, Lansing, Mich. Mr. Schaffer is largely responsible for the sales which have been made to the oil trade by this concern, taking in all fields from coast to coast. He is a native of Saline, Mich., and was born May 31, 1879. He started with the Novo Engine Company, as a traveling representative in 1910, and made his first trip through the oil country in the interests of this concern in 1914.

Beginning with that year he has called on representatives in the various oil fields on his regular visitation trips and he has secured the acquaintance of many of the leaders in the business. In 1919 he was made Southwestern district manager by his company and in 1924 he was appointed manager of the oil field division.

PERSONAL PARAGRAPHS

George McColl has returned to Petrolia, Ont., from the Persian fields.

• • •

A. J. Carr, well known pump and supply man, of Houston, Tex., has returned from a trip to Europe.

• • •

Pat Malloy, receiver for the Constantin Refining Company, Tulsa, has been in New York City, recently on business.

• • •

M. L. Johnson, independent operator of Chanute, Kans., who formerly lived in Tulsa, was in the latter city recently on business.

• • •

Thomas Arthur, field man for the Midwest Refining Company, has been transferred from Great Falls, Mont., to Helena, Mont.

• • •

J. E. Swindler, second vice president of the Frick-Reid Supply Company, of Tulsa, has returned from a short business trip to Chicago.

• • •

Faye C. Walter, an employe of the Oklahoma Natural Gas Company, Tulsa, has announced the arrival of a baby girl at his home.

• • •

W. E. Brown, formerly president of the U. S. Cities Corporation, Tulsa, has resigned and B. F. Everitt, president of the Rickenbacker Motor Company, has been named to take his place. Mr. Brown will remain in Tulsa as general manager and Mr. Everitt will open headquarters in Detroit, Mich.

F. M. Clark, formerly with the Frick-Reid Supply Company at Chanute, Kans., has been transferred to the general offices of the concern at Tulsa.

• • •

J. L. Shakely, sales manager of the Frick-Reid Supply Company, Tulsa, and Mrs. Shakely are spending the month of August in Eastern cities.

• • •

H. R. Vreeland, of the Robinson Packer Company, Tulsa, accompanied by his family, left recently for an automobile trip to St. Louis and Chicago.

• • •

J. S. Mellon, special sales representative of the Dunn Manufacturing Company, Oxnard, Cal., has been calling on the trade in the Casper, Wyo., area.

• • •

Earl B. Noble has been appointed division geologist for the valley and coast divisions of the Union Oil Company of California, with headquarters in Maricopa.

• • •

A. M. McQueen, vice president of Imperial Oil, Ltd., and Mrs. McQueen, have returned to Toronto, Ont., after a tour of England and Continental Europe.

• • •

James M. Douglas, of Fort Collins, Colo., a geologist with the Union Oil Company of California, was a business visitor in Casper, Wyo., during the past week.

• • •

N. S. Longabaugh, of Fort Worth, Tex., treasurer of the Longhart Supply Company, stopped in Casper, Wyo., recently during his tour of the Rocky Mountain oil fields.

• • •

Frank C. Meadows, of Wetumka, Okla., accompanied by his family, stopped in Tulsa recently for several days while on his way to Colorado on a vacation trip.

• • •

H. B. Carpenter, manager of the asphalt department for the Midwest Refining Company, has returned to Denver, Colo., after a short business trip to Casper, Wyo.

• • •

T. E. Haney, of the sales department of the Frick-Reid Supply Company, returned to the Tulsa headquarters recently after a business trip to Kansas City and St. Louis.

• • •

H. K. Davis, statistician for the Western Petroleum Refiners Association, left last week for Chicago. Before returning to Tulsa he will spend a vacation at Michigan points.

• • •

Stephens N. Davis has been appointed to represent the Kansas City Hay Press Company in the States of Texas, Louisiana and Arkansas, making his headquarters in Dallas, Tex.

• • •

M. O. Swan, who has represented the Kansas City Hay Press Company, for several years in the oil field equipment department, is now with B. Haymer & Co., Los Angeles, Cal.

• • •

Felix L. Gast, formerly superintendent of the land department for the Cosden Oil & Gas Company, Tulsa, accompanied by his wife and daughter, left recently for a trip to Colorado.

• • •

George Otis Smith, director for the United States Geological Survey, and Miss Margaret Broadnax, daughter of Mr. and Mrs. George Harrington Poske, were married recently at Washington, D. C.

• • •

J. M. Waters, who has been with the Western Supply Company, Tulsa, for the past 10 years, resigned recently to take work with the International Supply Company, Tulsa, in the sales division.

• • •

E. D. McAlly, manager for the Parkersburg Rig & Reel Company, in the Rocky Mountain region, has returned to his headquarters in Casper, Wyo., after a trip through Montana and southern Canada.

• • •

W. L. Neill, head of the land and lease department of the Magnolia Petroleum Company, was a recent visitor in Houston, from the the general offices of the company, at Dallas, Tex. Mr. Neill is a native of Titusville, Pa., and was associated with the oil industry in West Virginia before coming to the Southwest fields.

• • •

C. L. Mayhall, president of the Imperial Oil Marketing Company, Tulsa, is spending a vacation at California points with his family. He will return to the Tulsa office of the company about September 1.

• • •

W. C. Geis, chief geologist for the Brooks group of oil companies, Casper, Wyo., left recently for California, where his companies are interested in two tests, one of which was reported showing some oil.

• • •

E. H. Edderton, assistant field superintendent for the Producers & Refiners Corporation, Casper, Wyo., recently finished a trip through southern Wyoming and northern Colorado in the interests of his company.

• • •

L. C. Trapp, formerly district representative of the Empire Refineries, Inc., at Atlanta, Ga., has been placed in charge of the company's office at Chicago. E. M. Hornot succeeds Mr. Trapp in the Atlanta office.

• • •

Harry Mount, who was active during the flush days in the Illinois fields and later in Mexico, is in Houston, Tex. Mr. Mount makes his home in Los Angeles and has large land holdings in northern Mexico.

• • •

Colonel P. J. Hurley, president of the Gilliland Oil Company, Tulsa, is in Washington, D. C. Colonel Hurley is a member of the committee to notify President Coolidge of the Republican Presidential nomination.

• • •

Daniel J. Danker and son, of Brookline, Mass., who are interested in several Rocky Mountain companies and have numerous independent holdings in that area, visited the fields in the vicinity of Casper, Wyo., last week.

• • •

E. C. Breene, Oil City, Pa., attorney and president of the Pennsylvania Grade Crude Oil Association, returned to his home recently after several days of observation and treatment in Johns Hopkins Hospital, Baltimore, Md.

• • •

George H. Stoddard, of the firm of Buck & Stoddard, and John A. Zublin, chief engineer for the General Petroleum Company, Los Angeles, Cal., were calling on the trade in the Rocky Mountain region during the past week.

• • •

J. C. Lindsey, general manager of the Western Pipe Line Company, and the Marine Oil Company group, has returned to his headquarters in Casper, Wyo., after a short visit with relatives in Los Angeles, Cal.

• • •

Wade Shakely, superintendent of the electrical department of the Pure Oil Pipe Line Co., which includes telegraph, telephone and lights, with headquarters at Dallas, Tex., has been inspecting equipment at stations on the south end of the pipe line.

• • •

Erle P. Halliburton, president of the Halliburton Oil Well Cementing Company, Duncan, Okla., left recently for Houston, Tex., to attend to business matters. While away he will tour the Gulf Coast district, returning through Louisiana and Arkansas.

• • •

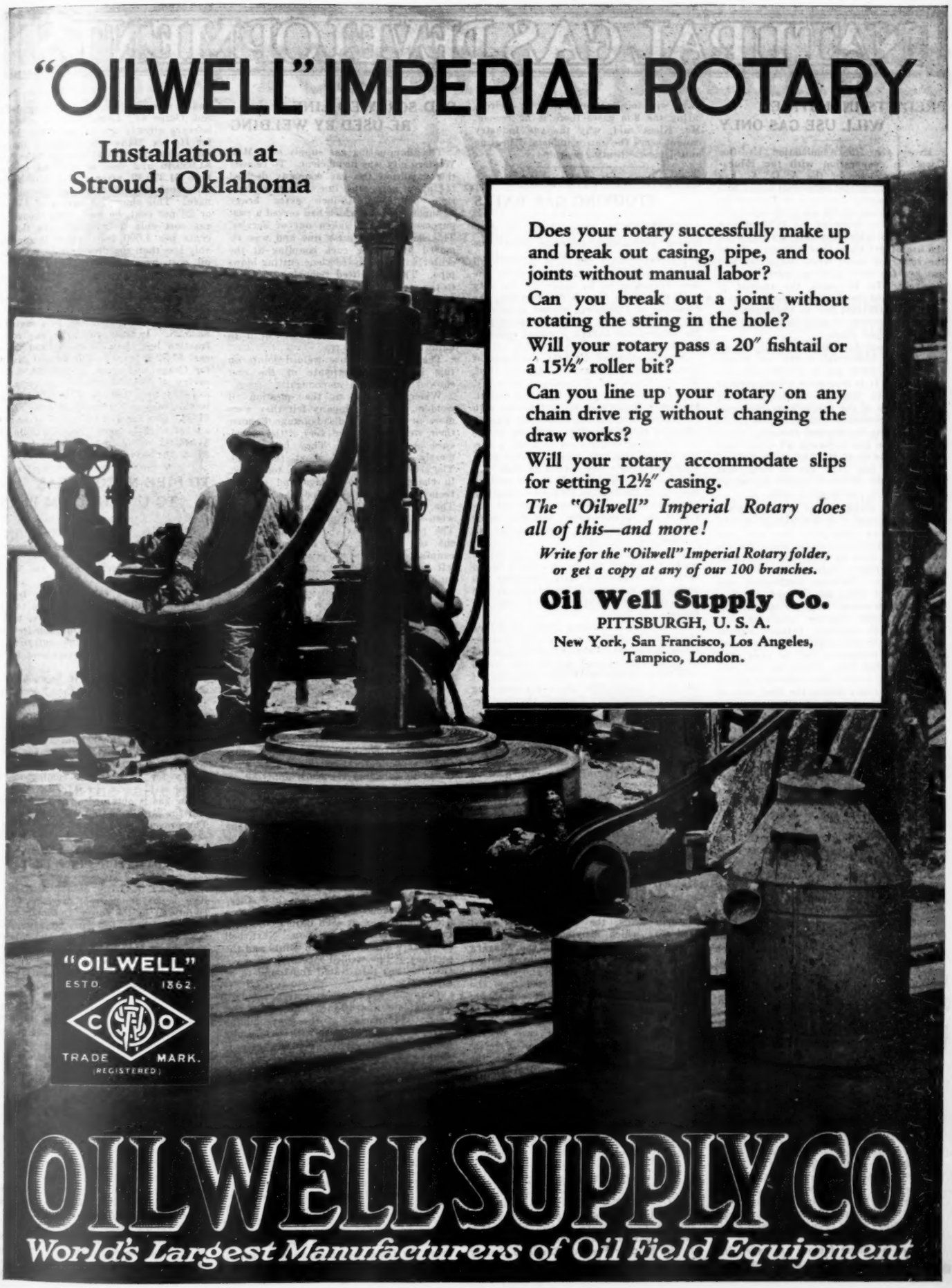
A. M. Donoughue, second vice president of the Texas Pipe Line Company, and Ernest Carroll, assistant to the first vice president of The Texas Company, both of Houston, Tex., were in Tulsa a part of the past week on business connected with The Texas Company.

• • •

Carroll G. Wegeman, dean of the Petroleum geologists of the Rocky Mountain region was a visitor in Casper, Wyo., over the week-end. Mr. Wegeman was the first geologist to make a detailed survey of the Salt Creek Field in the pioneer days and his findings a tthat time were held by many to be too enthusiastic on account of the size he gave the field. Since then his early report is shown to have been very conservative. Mr. Wegeman is head of the geological department of the Midwest Refining Company with headquarters at Denver, Colo.

"OILWELL" IMPERIAL ROTARY

Installation at Stroud, Oklahoma



Does your rotary successfully make up and break out casing, pipe, and tool joints without manual labor?

Can you break out a joint without rotating the string in the hole?

Will your rotary pass a 20″ fishtail or a 15½″ roller bit?

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OILWELL SUPPLY CO

World's Largest Manufacturers of Oil Field Equipment

Everitt will open headquarters in Detroit, Mich.

of Titusville, Pa., and was associated with the oil

Company with headquarters in Denver, Col.

NATURAL GAS DEVELOPMENTS

PREDICTS INDUSTRIES WILL USE GAS ONLY

Every year the Combustion Utilities Corp., in cooperation with the Educational Committee of the A. G. A., has been addressing the Industrial Gas Class at Massachusetts Institute of Technology on the question of the gas industry.

A. L. Klees delivered the 1924 address recently, in which he said statistics on the use of gas show that without a doubt the time will come when industries will use gas for their heating operations exclusively. In 10 years, the amount of gas consumed in this way has increased from 7,500,000,000 feet to 80,000,000,000 feet, or a growth of more than 1,000 per cent has taken place.

The reasons for the successful rise of gas in the industrial world are many. In the first place gas is scientifically the ideal fuel. It is in a state which permits of immediate combustion without going through any of the preliminary processes which are necessary with solid and liquid fuels. Again, in ease and economy of application the gas surpasses all other fuels and it is the most efficient in its utilization. The fact that gas is clean and eliminates the so-called "smoke nuisance" also places it above other fuels.

From the standpoint of cost, gas is the most economical and desirable fuel. In every heating operation, the cost per unit of production involves many factors of expense, such as first fuel cost, labor expense, furnace maintenance, material spoilage, etc. Because combustion can be controlled when gas is used, the furnace maintenance item is practically nothing; labor expense involving fuel handling, ash removal, furnace adjustments, etc., is also eliminated; and more mechanical equipment can be used than with any other fuel. While the first cost with gas is higher, the reduction of all these other items makes the final cost of production the lowest of all.

It is this cost factor which allows gas to surpass even electricity, which from the technical standpoint, is equally as efficient and desirable a fuel.

The overall thermal efficiency of production of electricity is very low in comparison with that of gas, and the fact that a large credit can be obtained from the byproducts of gas also gives it first place.

To obtain the best results from the use of gas, the following considerations must be kept in mind:

First, the gas and air must be correctly proportioned. This is necessary not only from the standpoint of efficiency, but also from the standpoint of obtaining the correct furnace atmosphere in the working chamber. Several methods for accomplishing this have been tried which have proved too expensive. The best all around system to date is the use of an injector which uses the energy of the gas under pressure to inspirate the correct amount of air for combustion.

Second, there must be a thorough mixing of the gas and air—the sooner the gas molecules are brought into contact with the air molecules, the quicker the heat energy is developed and the higher the temperature of the flame. The equipment which provides thorough automatic proportioning of the gas and air by the use of an injector also provides for a very complete and intimate mixture of the gas and air.

Third, the heat lost in the flue gases should be utilized. This can be accomplished by the use of regenerators of recuperators. These have been developed to a point where they can be installed on almost every type of furnace and operated under very economical and practical conditions.

When all these factors are taken into consideration, together with proper insulation of the furnaces and the doing away with localization of heat by recirculating the flue gases there is no reason, Mr. Klees said, why the gas industry cannot serve the entire industrial heating and domestic heating world.

CINCINNATI CHAMBER STUDYING GAS RATES

CINCINNATI, Ohio, Aug. 16.—Following preliminary hearings before the gas committee of the City Council on the gas rates to be charged under the new franchise to be made by the city with the Union Gas & Electric Co., the Chamber of Commerce offered to employ the services of an expert to investigate the subject and submit a report concerning its provisions.

After a study of the field, the board of directors of the chamber engaged Prof. W. D. Ennis, of Columbia University, to make the survey and submit a report. Professor Ennis was not unfamiliar with conditions in Cincinnati since he was an officer of the corporation employed by the city planning commission to make a survey of the city and submit a city plan. Professor Ennis has served as chairman of the gas section of the American Society of Mechanical Engineers, has had supervision over the installation of gas plants in various cities and has made several surveys for cities similar in nature.

It is expected he will have his report ready to submit to the chamber's board early in September and following its action the report will be placed at the disposal of the City Council and the public.

Cincinnati is making plans to follow the example of Chicago and several other cities in the establishment of a combined artificial and natural gas service, which will have as its basis the extraction of gas from coal. The plans are awaiting decision by the City Council, the final designs having been prepared and checked by the Union Gas & Electric Co. experts and their advisers. A new schedule of rates is contemplated with the erection of the new plant.

Utility engineering firms which were consulted were Bartlett & Hayward of Baltimore, the United Gas Improvement Co. of Philadelphia, and the Koppers Co. of Pittsburgh. The latter with the People's Gas, Light & Coke Co. interests of Chicago, manufactures the gas output of Chicago.

MIXED GAS FOR NIAGARA FALLS

CHATHAM, Ont., Aug. 16.—In the Ontario fields, the Provincial Natural Gas Co., which distributes natural gas from the Niagara Fields to the Niagara Falls-Fort Erie district, is experimenting with a mixture of natural and artificial gas, the latter to be imported from the United States. A big plant now being built in Buffalo for the production of manufactured gas is expected to have sufficient surplus to take care of the needs of the Provincial system. Five interntional pipe lines, used when the Niagara Field exported natural gas to Buffalo, have been tested and two of these have been found in sufficiently good shape to handle the importation of artificial gas. The Provincial Natural Gas Co. has done some drilling recently in search of an additional natural gas supply, but without success.

PERMIT GRANTED

AUSTIN, Tex., Aug. 16.—Application of the Phillips Petroleum Co. for a permit to manufacture carbon black from residue gas of casinghead gasoline plants in the Pioneer Field of Eastland County, has been granted by the Railroad Commission.

OLD SCREWED LINE RE-USED BY WELDING

The illuminating gas supply of a Mid-Western city was insufficient. To remedy this condition the gas company decided to lay a new pipe line. Just a short time before a 10-inch extra heavy wrought iron line which had served a past purpose had been taken out of service. This had been a screw line and was removed by cutting each coupling at the center with an oxyacetylene cutting blowpipe. This permitted removing the pipe to the storage yard in its original lengths without injuring it in any way. Furthermore, it was found to be in an excellent state of preservation. So the gas company decided to use 8,300 feet of it to build their new line.

They desired to use welded joints on this line if an estimate of the cost showed them to be economical.

When it came to the question of welders, the gas company felt they were more or less at a disadvantage because their welders had had very little experience on pipe lines. They had served merely as repairmen about the plant. The service operator, however, took them in charge for a few days and coached them in the kinks of pipe line welding. The welders picked these up rapidly and were soon competent to start on the line. The pipe used was that reclaimed from the old screwed line by cutting the couplings through their centers. This left half a coupling on the ends of each pipe length. These were cut and the pipe beveled in one operation with the cutting blowpipe. The operation merely circled around the end of the pipe holding his blowpipe head inclined at a 45 degree angle to give the desired bevel.

The lengths of pipe were then lined up on skids, each joint being successively blocked up to butt neatly before being welded. Next, the original length of pipe were welded together in sections of convenient length for lowering into the trench and hauling under street crossings, railway crossings, water supply mains, sewerage systems, or other such obstructions. The several sections were then tested by plugging the ends, applying an air pressure of 50 pounds per square inch, and smearing soap suds on the joint. All sections were found tight.

With this completed, the pipe sections were rolled on skids laid across the trench at intervals. At intervals the trench was spanned by pieces of pipe supported by wooden horses, one on either side of the trench. Several turns of rope were made about the pipe and these lowering beams at each location so that a couple of men at each beam could control the lowering of a section. Next, bell holes were dug at the tie-in joints and the sections of line welded together. The entire line was then tested and found to be airtight.

Only 30 working days were required to complete this 10-inch line, 8,300 feet long. The officials of the gas company were very well pleased with the results obtained, particularly so when records showed a considerable saving in cost effected by welding.

URGES OIL BURNERS FOR SCHOOLS IN TULSA

Oil burning equipment will be installed shortly in the schools at Tulsa, Okla. The action was taken on recommendation by W. F. Graham, superintendent of buildings and grounds, who stated that in the light of the experience with oil burning equipment at the Osage school, he believed a saving of 25 to 50 per cent would be effected compared with gas. Mr. Graham explained it had been possible to heat the Osage plant effectively with oil where it had been impossible to do so with gas. He presented comparative figures affecting the Horace Mann, Jefferson, Osage and Lowell schools where oil burners already are in use. His figures for Horace Mann school showed the annual cost of natural gas to have been $1,959.46 and that of fuel oil to have been $1,376,42, after adding $100 as the estimated cost of operating the oil furnace. This showed a saving of $563.04, or 28 per cent, he said, even though the gas cost only a fraction more than 34 cents per 1,000 feet, which is considerably less than the present rate. The fuel oil cost was $1.52 a barrel, which is considerably higher than the present quotation.

The gas cost at Jefferson, Graham's report stated, was $882.84, while that of oil was $547.56, resulting in a saving of $335.28. In this case the gas cost a fraction less than 42 cents, and the oil cost $1.52 a barrel. The annual gas cost for Osage was given as $956.24, with a saving of $215.58 effected by using fuel oil at a total cost of $740.66. The gas in this case cost around 32 cents and oil $1.52. Gas for Lowell school at an average of slightly more than 54 cents cost $1,902.02, as against $1,324.57 for oil at $1.52, the saving having been $577.45.

TO PIPE NOCONA GAS TO U. S. HELIUM PLANT

NOCONA, Tex., Aug. 16.—Surveyors—said to be Government surveyors—are running a line from the Fort Worth-Petrolia Government line to the Nocona gas field.

This action is taken here to indicate the early building of a line to tap the Nocona gas field north of here, with a present output of many million feet, and connecting with the line carrying gas from Petrolia to the Government helium plant at Fort Worth.

Several months ago it became known that analyses showed the Nocona gas among the richest helium bearing materials in the country, passing Petrolia, the Panhandle and Kansas fields, among the best known of the helium-bearing fields. This line will pass near Nocona, and it is expected to afford an excellent opportunity for natural gas coming to this place.

The gas is obtained at a shallow depth and the output is of tremendous volume. The proven field is many square miles in extent.

POTLATCH DEEP TEST

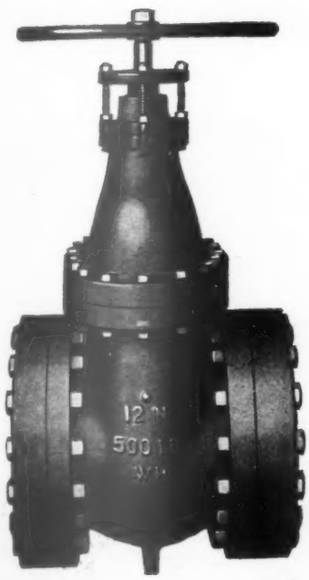
GREAT FALLS, Mont., Aug. 16.—A flow of gas under great pressure was encountered in the lower Devonian by the Potlatch deep test in Kevin-Sunburst NE SE NW, Section 21-34-1w, giving new hope for deep sand production in Montana. The flow of gas justifies deep tests in event of failure of this well to find production. The Potlatch has found no oil in the normal producing sands and there are many who believe it could be likewise dry throughout. The gas strike was preceded by a slight showing of oil which will doubtless be accepted as of sufficient significance to justify further search. The gas was encountered at 5,050 feet. The pressure from the blowout threw the tools up 250 feet in the hole, kinking the wire line and resulting in a fishing job.

GAS FROM LOW GRADE OIL

HOUSTON, Tex., Aug. 16.—Magnolia Park has installed a gas plant of the type known as the Oil Gas Process, whereby gas is made from low grades of crude oil. The plant has been tested out with Luling light gravity and Mexican heavy gravity residuum. The equipment is in duplicate to insure continuous operation. Some 1,500 meters have been connected to the service.

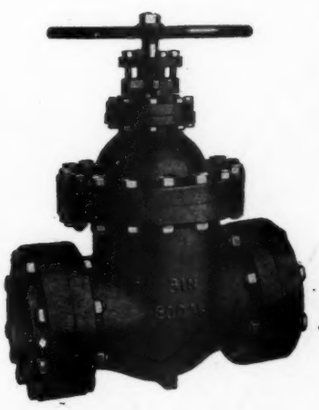
High Pressure Specialists

"The Best Designed Valve on the Market"

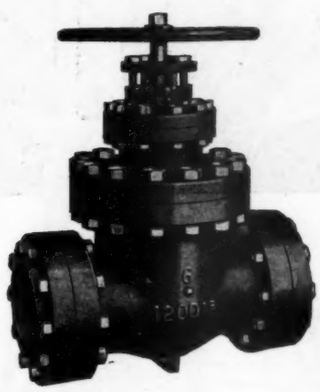


The Westcott Valve Company was organized to manufacture for the Oil and Gas trade a complete line of high grade gate valves for all pressures, and has made a special and exhaustive study of high-pressure valve construction.

As a result, we have brought out many improvements and refinements in design and materials which we believe support our claim that the WESTCOTT is "the best designed valve on the market."

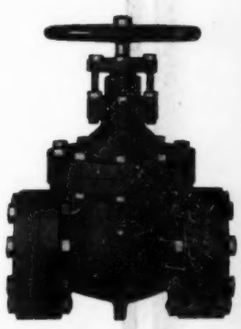


Bodies and bonnets are designed to give a maximum of strength where strength is needed, such as in the "pipe" necks back of flanges and hexagons, in the hexagon around the pipe thread, on the long sides of the oval bodies, etc.



The clear waterway with no lugs to obstruct the passage, the "leg" on the bottom to enable the valve to stand up in transit or wareroom, the four bolt glands, are among the many improvements which make this a "better" valve.

A double seating repacking collar allows our valves to be repacked while under pressure.



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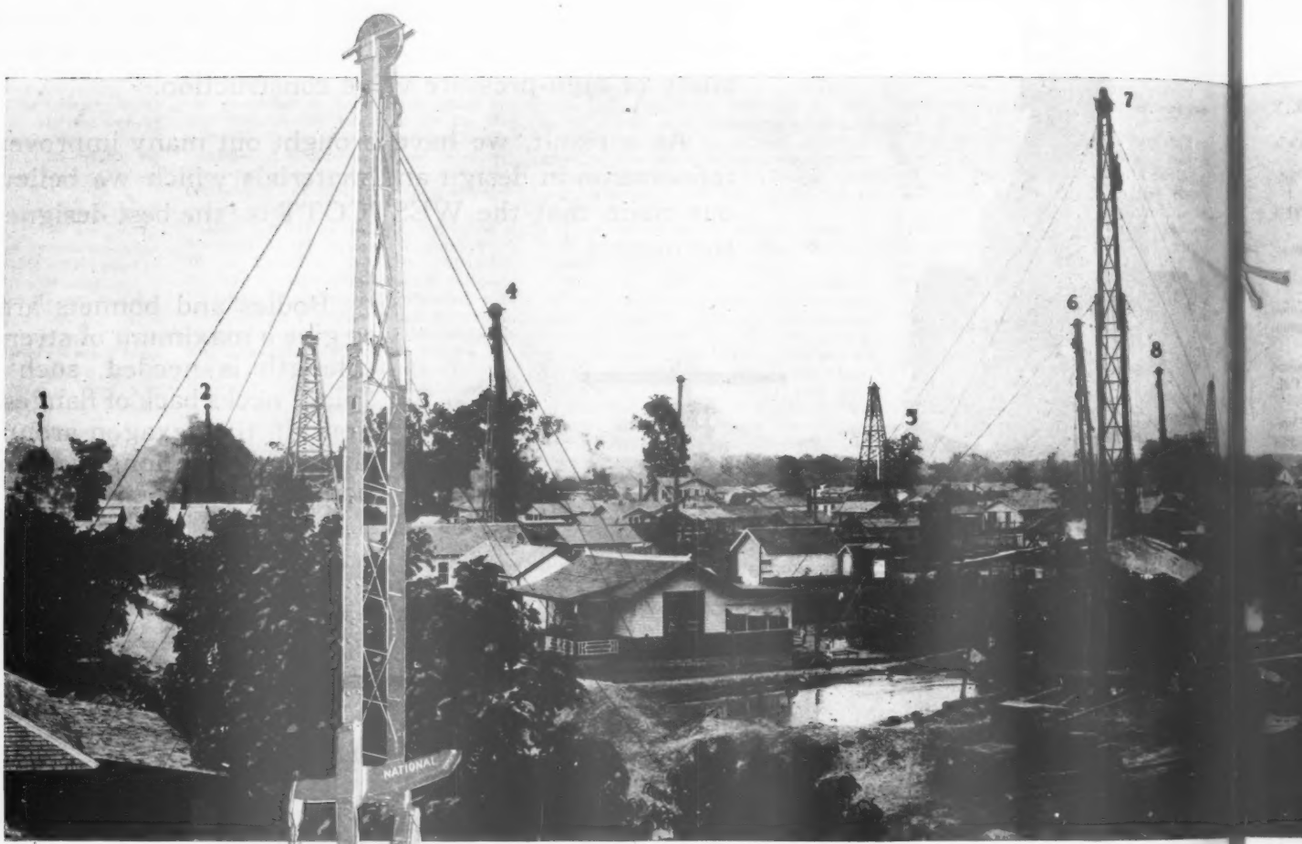

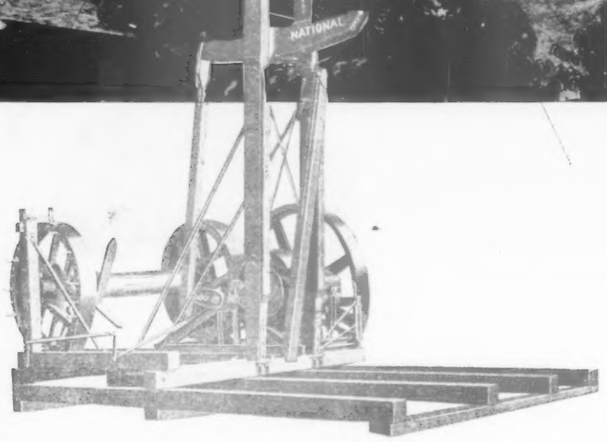

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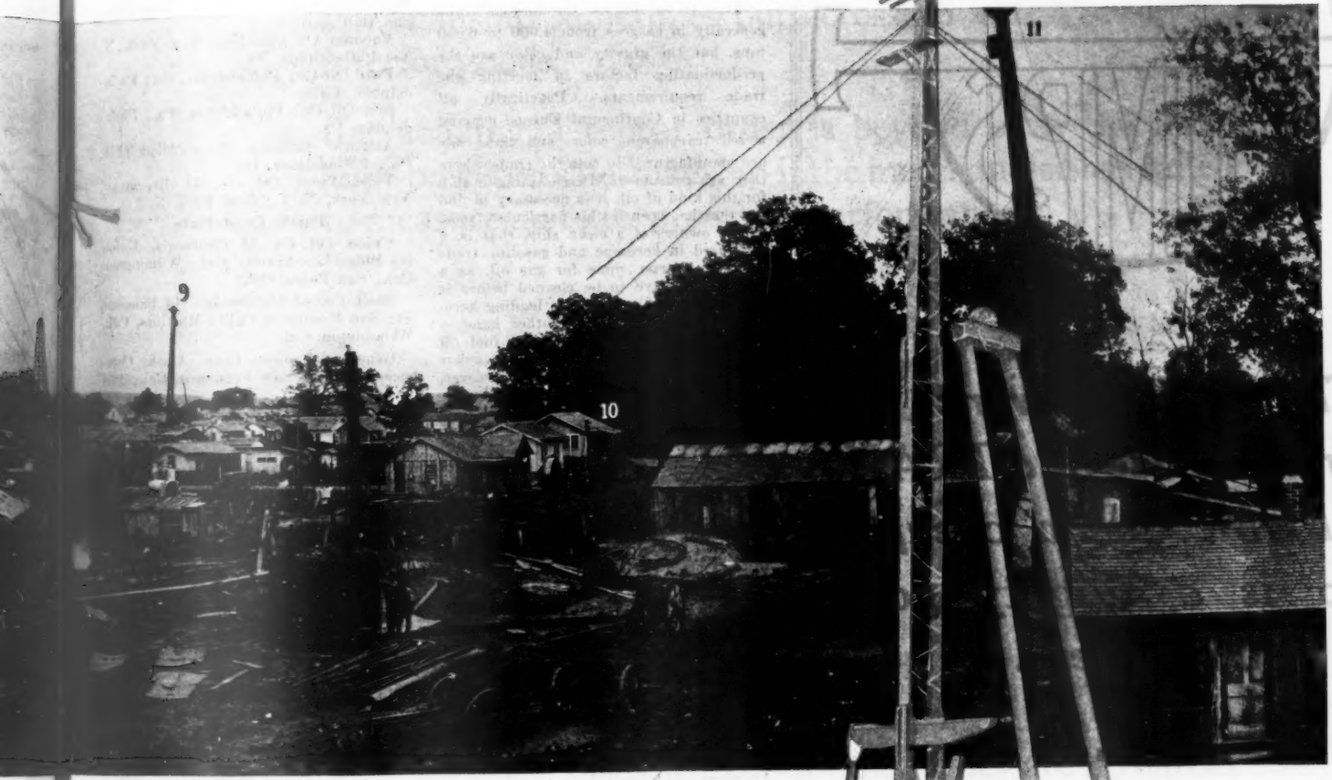

ion—"a's Back Yard Pool"

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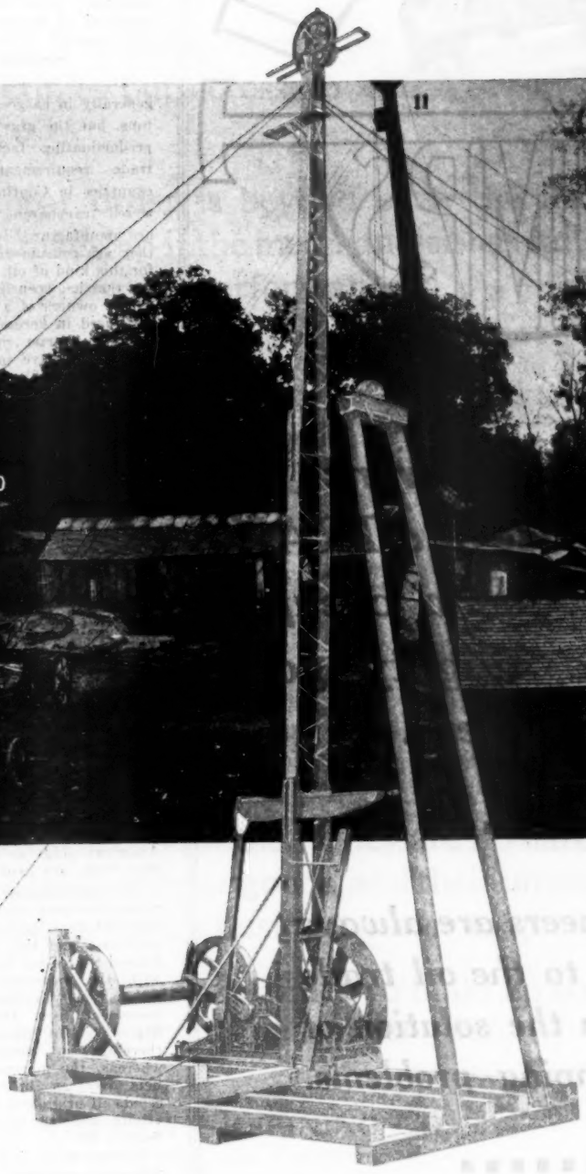

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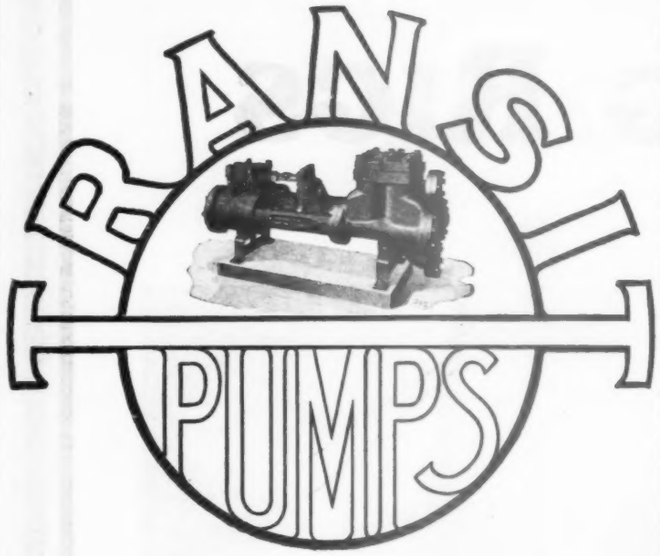

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NATIONAL TRANSIT PUMP & MACHINE CO.

Oil City, Pa.

District Offices: New York Philadelphia Pittsburgh Cleveland Tulsa Houston Denver

REFINERS PROTEST SHIPPING SECTION

(Continued from Page 28)

gravity and viscosity, would ruin the cargo and cause its rejection.

"In selling kerosene, the exporter frequently sells two grades of different gravity and color, and of a given quantity which must not exceed that agreed upon, otherwise the buyer cannot unload the ship where his storage on shore is limited to the amount of his purchase. A ship required for kerosene must be clean to prevent discoloration, and the compartments must be tight to prevent one grade of oil seeping into a compartment with another grade.

Practical Conditions

"Gas oil is sold to the foreign trade generally in cargoes from 4,000 to 6,000 tons, but the gravity and color are the predominating factors in meeting the trade requirements. Practically all countries in Continental Europe demand a red transparent color, and these oils are manufactured to suit the trade where they are consumed. In obtaining a ship for this kind of oil, it is necessary to find one that has been in this particular trade, as the owners of a clean ship, that is, a ship used in kerosene and gasoline trade will not charter same for gas oil, as a ship would have to be cleaned before it would be suitable for again loading kerosene or gasoline. On the other hand, a ship last loaded with crude or fuel oil could not be used, as it would discolor and contaminate the gas oil. However, there are a number of ships, mostly flying foreign flags, that are kept in this particular trade, plying between United States ports and Europe.

"Ships carrying crude or fuel oil are always easy to obtain, but there is very little crude or fuel oil that moves overseas. However, the quantity of crude and fuel oil being transported is very large, but the movement is from Mexico to the United States, and from California to the Gulf and North Atlantic Ports, and from Gulf Ports to North Atlantic Ports, and it is this trade that requires the service of practically all dirty ships flying the American flag. The size of the ship in this trade is of no special consequence, as the oils in nearly every case are consigned to the large refineries located on the seaboard who have unlimited storage on shore, and practically all the privately owned ships and such American ships as belong to the steamship lines, are kept in this service.

"In consideration of this subject, I think it is most important and fair to the exporter, that the movement of petroleum coastwise and that from Mexico to the United States not be confused in any way with the movement overseas, for the reason that the coastwise movement or movement from Mexico to the United States is not transported inland, and therefore not subject to Section 28, whereas, the movement of refined products overseas, in which we are interested, all originates inland and would be vitally affected by the enforcement of Section 28."

Following is a list of exporters of petroleum products from United States to foreign countries, including port of export:

Gulf Ports

Sinclair Refining Co., 45 Nassau St., New York, N. Y.; New Orleans, La.

Marland Oil & Refining Co., Ponca City, Okla.; Galveston, Texas.

Cosden & Co., Cosden Bldg., Tulsa, Okla., New Orleans, La.

Dingwall Petroleum Co., 17 Battery Place, New York, N. Y.; Houston, Texas.

Tiona Petroleum Co., Widener Bldg., Philadelphia, Pa.; New Orleans, La.

Carson Petroleum Co., 208 S. La Salle St., Chicago, Ill.; New Orleans, La.

Refiners Export Oil Co., Munsey Bldg., Baltimore, Md.; Galveston, Texas.

Louisiana Refining Co., New Orleans, La.; New Orleans, La.

Chalmette Refining Co., New Orleans, La.; New Orleans, La.

Galena Signal Oil Co., Franklin, Pa.; Houston, Texas.

The Texas Co., 17 Battery Place, New York, N. Y.; Port Arthur, Texas.

Pan-American Petroleum Co., Security Bldg., Los Angeles, Cal.; New Orleans, La.

Gulf Refining Co., Pittsburgh, Pa.; Port Arthur, Texas.

Standard Oil Co. of New Jersey, 26 Broadway, New York, N. Y.; Baton Rouge, La.

Standard Oil Co. of Louisiana, Baton Rouge, La.; Baton Rouge, La.

Magnolia Petroleum Co., Magnolia Bldg., Dallas, Texas; Beaumont, Texas.

North Atlantic Ports

Standard Oil Co. of New Jersey, 26 Broadway, New York, N. Y., New York and Baltimore.

Vacuum Oil Co., Inc., New York, N. Y.; Philadelphia, Pa.

Pure Oil Co., Philadelphia, Pa.; Philadelphia, Pa.

Sun Oil Co., Philadelphia, Pa.; Philadelphia, Pa.

Atlantic Refining Co., Philadelphia, Pa.; Philadelphia, Pa.

Tide Water Oil Co., 11 Broadway, New York, N. Y.; New York, N. Y.

Pacific Coast Ports

Union Oil Co. of California, Union Oil Bldg., Los Angeles, Cal.; Wilmington, Cal.; San Pedro, Cal.

Shell Co. of California, 343 Sansome St., San Francisco, Calif; Martinez, Cal., Wilmington, Cal.

General Petroleum Corp., Alaska Commercial Bldg., San Francisco, Cal.; Los Angeles, Cal.

Associated Oil Co., Inc., Associated Oil Bldg., San Francisco, Cal.; Avon, Cal.

Standard Oil Co. of California, San Francisco, Cal.; Richmond, Cal., El Segundo, Cal.

Importers of petroleum and petroleum products to the United States from foreign countries:

Sinclair Refining Co., Gulf and North Atlantic.

Mexican Petroleum Co., Gulf and North Atlantic.

Atlantic Refining Co., South and North Atlantic.

Beacon Oil Co., North Atlantic.

Gulf Refining Co., Gulf and North Atlantic.

Standard Oil Co. of New Jersey, Gulf and North Atlantic.

Standard Oil Co. of New York, North Atlantic.

Standard Oil Co. of California, Pacific Coast Ports.

Southern Pacific Co., Gulf and North Atlantic.

Sun Oil Co., North Atlantic.

Swiftsure Oil Co., Gulf Ports.

The Texas Co., Gulf and North Atlantic.

Tide Water Oil Co., North Atlantic.

Vacuum Oil Co., North Atlantic.

Barber Asphalt Co., North Atlantic.

Interocean Oil Co., North Atlantic.

Magnolia Petroleum Co., Gulf Ports.

New England Oil Refining Co., North Atlantic.

New Orleans Refining Co., Gulf Ports.

Asiatic Petroleum Co., Gulf and North Atlantic.

Warner Quinlan Co., North Atlantic.

Galena-Signal Oil Co., Gulf Ports.

Humble Oil & Refining Co., Gulf Ports.

Cities Service Refining Co., Gulf & North Atlantic.

Union Oil Co. of California, Pacific Coast Ports.

CURTAILMENT AT TOLEDO

TOLEDO, Ohio, Aug. 16.—Practically all of the refineries located in and near this city have curtailed their operations during the past few days. The Standard of Ohio plant located at East Bay Shore has curtailed operations and the Paragon Refining Co. at Ironville is practically limiting its operations to rerun, while repairs are being made. The crude runs to stills of the Sun Co. and the Craig Refining Co. have also been reduced.

They Sell and Stay Sold

The enthusiasm and friendship that enter into personal salesmanship sometimes put across an initial order for inferior goods.

But coaxing a repeat order is beyond even the most high-powered salesmanship if the merchandise has failed to measure up to its promised performance.

PENN AMERICAN *dependable* *Pennsylvania* *products*

Guaranteed 100% PURE PENNSYLVANIA OIL
The highest grade oil in the world

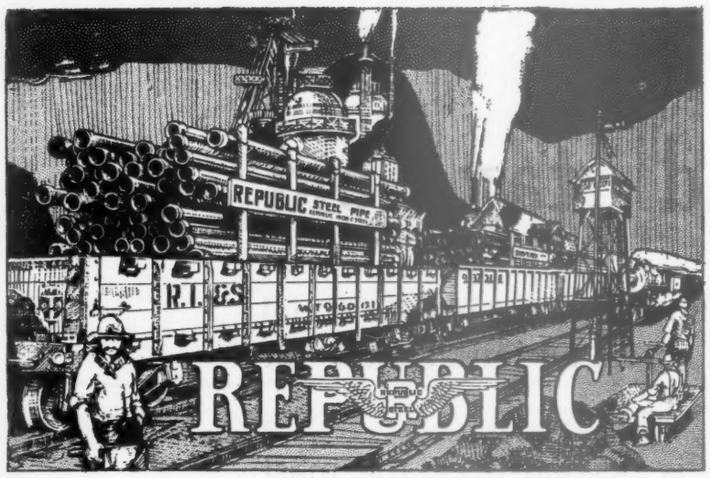
kill both these birds with one stone. They are no harder to sell the first time than inferior goods, and their unvarying high quality makes future business easier to get.

All Penn American products are aimed to build up solid satisfaction and constant profits year after year.

PENN AMERICAN REFINING CO.
Refiners of Pennsylvania Petroleum
Home Office: Oil City, Pa.
Refineries: Oil City and Rouseville, Pa.
Established 1886

Tips from an Old-Timer

The better the merchandise the less high-faluting salesmanship and "personality" is required to sell it.



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DISPUTE OVER RUMANIAN OIL LAW REPORTED REACHING AN ACUTE STAGE

By L. M. Fanning

Despite reassuring statements issued by Rumanian officials and by certain British companies with interests in Rumania, the situation as regards that country's new mining law and its serious effect on foreign oil interests, remains critical. Vintila Bratiano, Rumanian Minister of Finance, is credited with a statement emphasizing certain modifications in the law as it passed the Chamber and the Senate and saying that acquired rights are entirely guaranteed. Future concessions, he says, will be subject to the new regime and foreign capital will be allowed to participate. However, an examination of the law as finally passed fails to reveal any modifications in the fundamental provisions which, as interpreted by foreign interests with properties at stake, mean that they will be deprived of these properties.

At this writing it is not entirely clear whether the Rumanian Government has replied to the note sent by the United States Government on the question. At any rate, the reply was considerably over due, and foreign advices state that the oil question between Rumania and the United States has now reached an acute stage. In Rumanian political circles, it is stated, a great fear exists that the American Government will begin reprisals by recalling the Minister and by demanding immediate payment of money lent to Rumania during the war. Earlier advices stated that the Rumanian Government had completed a detailed reply to the recent American protest against the provisions of the new mining law. The Bucharest press stated that the reply is a reiteration of Rumania's intention to respect the acquired rights of all companies and a reaffirmation of the Government's sovereign right to conserve oil resources in the interest of the nation. Regarding the payment of the long overdue commercial debts, the Government, according to these sources, urges submission of the prposals for funding them on an interest bearing basis, leaving the war debts for later consideration.

Mining Law Analyzed

The new Rumanian mining law which has passed the Senate and Lower House and is now in the hands of King Ferdinand for his signature, contains provisions which, it is asserted, are not only discriminatory and confiscatory, as regards foreign oil interests but which, as regards actual practical operation, lend many uncertainties to the continued development of Rumania's oil industry.

The provisions of the law relating to exploration are considered among the most important in the act. Exploration permits are granted by the State, which owns the mining subsoil. A company receiving an exclusive permit for the exploration of a region is not insured of subsequently obtaining a concession except under certain conditions. If the exploring company is successful it has a preference right to the concessioned perimeter formed around the point explored, but if the financial and technical capacity of the undertaking is considered insufficient, the concession will be transferred by the State to another undertaking thought to satisfy this condition, and the exploring company is given a right to a royalty amounting to about 1½ per cent of the crude produced on the concession, a right to participate in the capital and the concessionee company up to 30 per cent of the capital and the exploring company finally to be compensated by the concessionee company for expenses incurred in exploring the region.

The question is raised whether a company would want to undertake exploration under such conditions, having no complete right to take up a concession if it is successful in exploration and being compelled to risk capital in the uncertain business of wildcatting with a possibility of having only a participating minority interest in the developing company whose profits are in turn uncertain and of having only a small royalty interest in production.

It is believed that the only way companies could be interested in exploration would be for them to have an absolute and indisputable right to the concession formed around the points explored by them successfully, instead of merely a right of preference. The law stipulates that the duration of the exclusive exploration permit is three years with one single prolongation of one year. In exceptional cases the permit may be prolonged until the expiration of the fifth or sixth year. Actual drilling operations in unproven territory in Rumania show that it would be difficult to complete preliminary operations and drilling operations in the time limits specified.

Foreign Companies Barred

The region explored with favorable results will be declared concessionable mining property which will be divided into perimeters of concession. The perimeters of concession formed around points explored with positive results are to be granted to the explorer but the law provides that concessions will be granted only to companies constituted as Rumanian mining companies. This means companies with nominative shares, with 60 per cent of the capital held by Rumanian citizens, with two-thirds of the board of management, directors and president of the board Rumanian subjects.

The result of thees provisions of law is that enterprises which have a majority or total foreign capital will not be allowed to explore. Petroleum exploration in Rumania to date has been prosecuted almost entirely by foreign companies in a position to invest capital in a risky enterprise. Much money has been lost in Rumania in exploration work but the need for continuing this work is obvious when it is considered that experts estimate the richest deposits in Rumania at present will be exhausted in 15 to 20 years. The present fields of Bustenari, Campina, Moreni and Ochiuri, it is asserted, are approaching exhaustion. This situation, together with the fact that oil companies with foreign capital have largely developed Rumania's production to its present magnitude, indicates that the interest of the country should be to encourage and invite foreign capital to continue and increase its activities.

Nationalizing Foreign Companies

The law stipulates that existing foreign companies may, during the first 10 years from the promulgation of the law, benefit of the advantages of Rumanian mining companies on condition that within that time they transform themselves into Rumanian companies such as those described. Most of the existing companies would be required to make this change, as almost all of them have a preponderance of foreign capital. The practical difficulties of making the change include a possible necessity of increasing the capitalization of foreign companies and placing the increase in the hands of Rumanian share holders at a rate in proportion to the present importance of the enterprise. It is estimated that if all liquid utilized, foreign companies could not transform themselves in accordance with the regulations required. Furthermore, an increase of this extent in capital, if possible, would result in the change of a business possibly prosperous to one without security of profit. Foreign companies believe that the operation of nationalization on the capital invested in Rumanian petroleum is impossible, and if this is the case they are in fact excluded from ability to lease the state perimeters.

The Government contends that it does not seek to alienate foreign capital and initiative but seeks to subordinate it to national capital. It says it does not seek to obliterate existing undertakings but to transform them into smaller undertakings in which the capital and management should be majority Rumanian. If foreign companies are unable to make the

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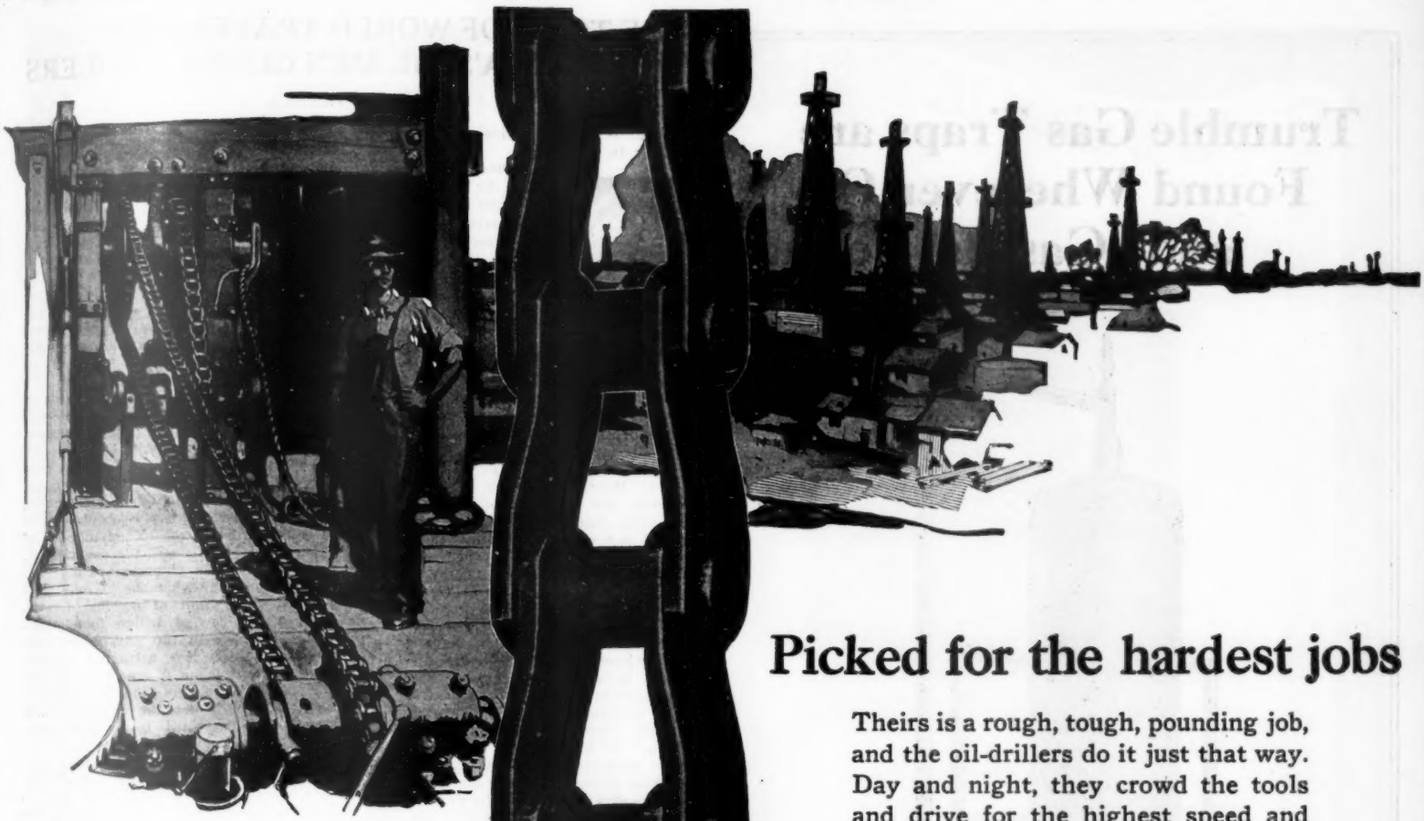

The long, reliable service it gives has made Rex Chabelco the standard heavy-duty sprocket chain not only in oil-well drilling, but on construction machinery, and in cement mills, saw mills, automobile plants and many other industries

Picked for the hardest jobs

Theirs is a rough, tough, pounding job, and the oil-drillers do it just that way. Day and night, they crowd the tools and drive for the highest speed and the maximum power there is in the drilling rig.

They have no time to coddle things that cannot stand the gaff.

That is why Rex Chabelco Chain today is the standard drive chain in every important oil field. The rugged strength of its all-steel construction insures an unfaltering flow of power. Its long, long life is the best insurance of low-cost operation.

The chain that other oil men thus depend on is the chain for your own rotary and standard rigs. It will keep down your upkeep costs and reduce your chain replacements. The name "Rex Chabelco" is stamped on the sidebars.

CHAIN BELT COMPANY, MILWAUKEE

Branch Offices and Representatives in Principal Cities in the United States and Abroad

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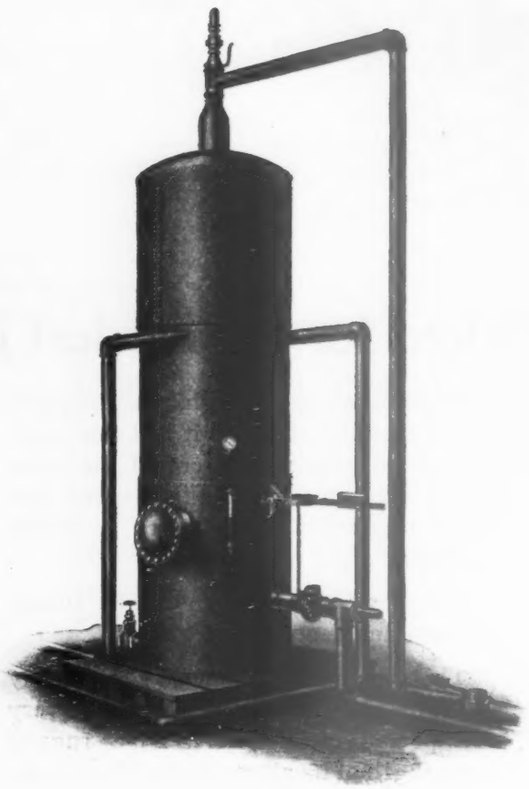
Leading Supply Houses in All Fields

profits are in turn uncertain and of hav-

(Continued on Page 76)

Trumble Gas Traps are Found Wherever Oil and Gas Is Found



For many years Trumble Oil and Gas Separators have been used all over the world and a saving of both oil and gas has been effected by their use. A saving of oil is effected by holding the lighter constituents in the oil while the separation is taking place, under pressure. The gas when separated from the oil is confined to pipe lines where it may be carried to any place where it may be desired.

Oil and gas conservation is an important item in the operating fields today and may be the difference between profit and loss in operating a small field.

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William C. Rae
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TULSA, OKLAHOMA

THE TOWN OF WORLD TRAVELERS; PETROLIA'S OIL MEN GLOBE GIRDLERS

By Victor Lauriston

What is the most widely known community in Canada?

Known, I mean, at least by name, to the greatest number of individuals, to the most varieties of humanity, and to the most widely scattered lands of the earth?

If you were to ask me that question—if you were to bid me show you the favored community—I would take you—

Not to Ottawa, the capital; not to Quebec, with its historic associations; not to Halifax and St. John, our eastern gateways, nor to Prince Rupert and Vancouver, our gateways to the west; not to Montreal, beloved of the thirsty Yankee, nor to Toronto, mecca of the Canadian intellectual—

But to a community of less than 5,000 people, in an isolated corner of southwestern Ontario, linked to the rest of Canada, and to the world in general, by two "dead ends" of railroad.

Over these dead ends of railroad, homeward or outward bound, have passed men whose aggregate mileage of world travel is undoubtedly greater than the aggregate mileage of the residents of any city in Canada.

This little town is lovingly called "home" by hundreds of men who spend there perhaps one month in 12 of their working lives. It boasts among its property owners more men who have actually circumnavigated the globe than any other community in Canada. In a geography lesson in its public school, scarcely any country can be mentioned that some child in attendance has not seen. Its men folks have, in the aggregate, looked upon more different human beings and more varied scenes than the residents of any other Canadian community; and have had fixed on them in their journeyings to and fro more awed, admiring or hostile human eyes.

These statements may seem far fetched. Yet they are literally, actually and indubitably true.

The town is Petrolia, the Canadian oil metropolis, and the headquarters of the Canadian oil drilling experts who, during the past 40 years, have pioneered for oil in all corners of the world.

World Girdlers Come and Go.

To Petrolia, travel is mere commonplace; as much a part of the everyday texture of life as eating and sleeping. The return of a Petrolia driller from Persia after a journey of 13,000 miles by land and sea, the departure of a Petrolia driller for Burma or Australia or the Argentine, causes no excitement. World travelers come and go every day—in Petrolia.

Petrolia is not the only town in the world dependent on foreign travel for its commercial prosperity. But where other places thrive by reason of the strangers they attract, Petrolia's prosperity rests on the citizens it sends into exile.

Yet this Petrolia, which has sent so many drillers to the far ends of the earth, itself scarcely hears the sound of the drill from year's end to year's end.

Things were not always thus. In the oil boom days of the 60's Petrolia leapt into sudden existence as the metropolis of Canada's first and greatest oil fields, developed amid the soggy swamps and hardwood forests of the "Lambton bush." From the first oil discoveries along Black Creek and Bear Creek, the drilling extended far and wide. The dozens of shallow wells became hundreds; the hundreds became thousands.

The new art, science or trade of drilling for oil grew up to meet a bewildering demand. It enlisted many raw recruits. Strangers from the United States, youths from nearby farms, alike were taken into the ranks; and alike became experts in the operation of the Canadian pole-tool system.

A word of explanation here. Under the American or "standard" system, the drilling tools are suspended from a cable, paid out as the well goes deeper. Under the Canadian or "pole-tool" system, rods or poles, linked together, are used instead of the cable. In the early Petrolia days, black-ash rods were used. Later, iron rods were sustituted. Indeed, the Canadian system seems to be the older of the two; and it is found especially advantageous for drilling in new fields where the rock formations are a matter, not of definite knowledge, but merely of conjecture.

In this Canadian system, hundreds of men became expert. Their sons became, first their helpers, then their successors, in the trade. Wherever in Ontario new oil fields were opened, new recruits were enlisted by the business. But though Oil Springs, Sarnia, Bothwell, Dunnville, Kingsville, Fletcher and other places have all contributed to the Canadian corps of experts, Petrolia is still the unquestioned metropolis of the pioneers of oil.

The time came when the Petrolia fields reached their limit of possible development. The army of drillers found themselves idle, or, in the alternative, compelled to seek less attractive employment. For a time it seemed as though the thousands of three-pole pumping derricks that still dot the Lambton landscape were destined to become monuments to a lost art.

Pioneer in Foreign Fields

Opinions differ as to the actual identity of the first Canadian drillers to work in foreign fields. One tradition has it that George Normandy drilled in Rumania when that country was still the Turkish principality of Wallachia. But the most authentic records indicate that this present year of grace, 1924, marks the golden jubilee of foreign drilling. For it was in May, 1874, that Petrolia citizens, headed by the town band, marched to the train to give a royal send-off to the first Canadian drilling crew to leave for foreign fields. That crew comprised Joshua Porter, driller; Malcolm Scott, engineer; and William Covert, scaffoldman; and they were bound for far-off Java. These men took with them to the Far East a Canadian pole-tool outfit manufactured at Petrolia by George Sanson and Hector MacKenzie.

The results of the Java venture are uncertain. Little is known of the experiences of the pioneers there. After their return, it was not until 1896 that the Java Field once more opened to Canadian drillers. But between that year and 1914, a period of 18 years, a total of 134 Canadian drillers had gone—many of them more than once—to the Dutch East Indies alone; and seven of them found their graves there.

Drilling in Galicia

It was not, however, from the Orient that the movement of Canadian drillers to foreign fields received its first great impetus; but from the far-reaching Austrian enterprises of William Henry MacGarvey. In the 80's, this former Canadian, prospecting for oil in the Carpathian foothills of Galicia, found European methods anything but adequate. The field, he determined, needed proper drilling equipment and intelligent experts. He met the situation by bringing in Petrolia men whose ability he knew and whose loyalty he could trust.

The great MacGarvey organization of later years was recruited largely from Canada; and MacGarvey's enterprises definitely turned the tide of Canadian experts toward foreign fields.

Since then, Petrolia drillers have gone east, west, south and north, have penetrated jungle, mountain and desert, from Burma and China to Australia and the Argentine, in the romantic search for the world's liquid gold. They helped drill Rumanian wells. At Baku and Grozny, in Russia, they tapped and capped huge gushers. A Canadian from

(Continued on Page 116)

ENCYCLOPEDIA OF WORLDS GREAT WORKS OF ART

Mona Lisa

The masterpiece of Leonardo da Vinci (born in 1452, died 1519,) painter, sculptor, architect, musician, engineer, mathematician, and philosopher. He was the great rival of Michael Angelo, and one of the most remarkable and many-sided intellects of the middle ages, appropriately named the Faust of the Renaissance.

He was the illegitimate son of a peasant woman and a Florentine notary, and was educated in Florence. "The Last Supper" and "Mona Lisa" were his outstanding completed works. He was a man of extraordinary physical beauty and physical strength.

In his *Mona Lisa* he created a symbolical type of feminine beauty, subtle, enigmatic, with the mysterious smile that has haunted and perplexed the succeeding generations.

van Beethoven

Born 1770, died 1827. At the age of twenty-eight he began to lose his hearing and in a very short time became so deaf that communication with him had to be made in writing.

For many years he copied the style of Mozart and Hayden, but gradually he grew away from imitation and originated a style of his own, developing considerably some of the musical forms of his predecessors.

He too found that skill in technique was greater than imitation.

"The tumult and the shouting dies;
The captains and the kings depart."

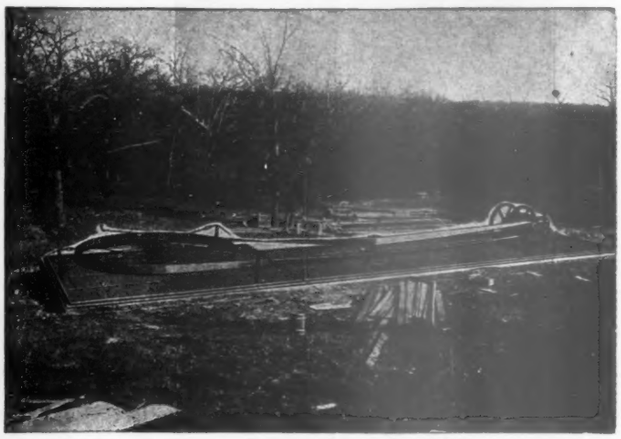
How soon their names are forgotten! What is the difference who ruled Florence when Leonardo painted Mona Lisa; or who was King of Prussia when Beethoven composed his symphonies? Leonardo and Beethoven were outstanding men, and the subsequent years have but added to the value of their art. —Mona Lisa, the acme of perfection in painted imagery, and Beethoven, concord of sweet sounds, are no more artistic, no more harmonious than the symmetrical, marvelous, and perfect construction of the RED PACKER.

"Mona Lisa," a work of art; "The Moonlight Sonata," tuneful rhapsody; and the RED PACKER, are wonderful achievements for years to come of a poem in colors, tuneful harmony, and a perfect mechanism.

ROBINSON PACKER CO.

TULSA OKLAHOMA

Continuous Oil Field Operation



In the Homer, Louisiana, Field six All Reid Pumping Plants, similar to the one illustrated above, have established an enviable record for continuous operation.

From August 31, 1923, to February 16, 1924, each of these six plants was in operation an average of 4051 hours with an average shutdown time, due to all causes, of only five hours. Less than half of a tour in six months!

Each plant consisted of a Reid Gas Engine and a Reid Band Wheel Pumping Power, 25 and 30 H. P. engines and 16 and 18-foot powers being used. Each plant pumped up to twenty wells, the average being thirteen wells, depths running from 1000 to 1400 feet. About 11,000 feet of rod line was handled by each plant.

If you are interested in hearing further about this or similar installations, write us and we will gladly furnish you additional information.

Joseph Reid Gas Engine Company,
Oil City, Pennsylvania, U. S. A.

Branches and Agencies—Marietta, Ohio; Logan, Ohio; Newark, Ohio; Ft. Recovery, Ohio; Haynesville, La.; Shreveport, La.; Charleston, W. Va.; R. B. Moore, Bolivar, N. Y.; Bradford Supply Co., Robinson, Ill.; Frick & Lindsay Co., Bradford, Penna., and Kenutcky Distributors; S. R. Shoup, 708 Pacific Electric Bldg., Los Angeles, Cal.; Oklahoma, Kansas, Texas, Arkansas and Wyoming, Frick-Reid Supply Company, Tulsa, Okla., and Branches.

Branch Shop—TULSA, OKLA.

11

DISPUTE OVER OIL LAW REACHES ACUTE STAGE

(Continued from Page 72)

change stipulated, knowing that they are destined to disappear at the expiration of their present concessions, they would naturally be satisfied to exploit these concessions and would make no further efforts to discover new regions. This would mean a falling production, and Rumania would be faced with the necessity of trying to raise from Rumanians an impossible sum for new oil enterprise and risk. Foreign capital would be definitely discouraged and would be reluctant to participate in activities so prescribed and regulated as pertains to mining law.

Abnormal Condition in Distributing

The law provides that mining undertakings, as well as organizations for the distribution of crude or petroleum products are obligated within the limits of production to insure the regular and normal supply of Rumania and that they may not restrict or suspend this without legitimate motives and without the express consent of the Ministry of Industry and Commerce. Such a provision is difficult to understand under normal operations which would point to a logical fulfilment of domestic demand. As a matter of fact Rumania has set up so many arbitrary regulations as regards production and commercialization of mining products that existing conditions are, and conditions have been for some time, abnormal. There is no liberty of action in the petroleum industry. Production is impeded by various measures of coercion and commerce in petroleum, including all kinds of taxes and fixation of maximum prices which are sometimes lower than the cost price. It is believed that a return to normal policy would do away with any necessity for worry or regulations having to do with the ability or desire of the industry to supply home consumption.

State Action on Pipe Lines and Refineries

The law provides that the State can appropriate the existing pipe lines between the fields and the storage stations when these lines may serve several exploitations. It is believed there is no justification for this step and the result of it will be to prevent the enterprise improving their means of transport. The statement is made that no enterprise has ever found it impossible to transport its production when pipe lines were operating in the regions capable of transporting it. Neither is it believed there is any justification of State interference in the enlargement and modification of refineries, as stipulated in the law.

MINISTER TO RUMANIA TO REPORT ON OIL LAW

WASHINGTON, D. C., Aug. 16.—Peter A. Jay, American Minister at Bucharest, is coming home for conference at the State Department which may have an important bearing on future relations between the United States and Rumania.

The subject of the discussions will be the recent act of the Rumanian Parliament covering mining and oil exploration and development in that country in a way to affect adversely American interests, particularly in Rumanian oil deposits.

Officially, the reason for Mr. Jay's return to the United States is "for conferences." It is likely that the date of his return to his post may depend on the success of future American efforts to have the new law modified.

The matter already has been the subject of representations to the Rumanian Government, but so far as has been learned, the sections of the legislation objected to have not been corrected.

PIPE LINE RUNS IN MONTANA, SECOND QUARTER, 1924

CAT CREEK FIELD

Mutual Oil Co.

Operator, Lease, Well No.—	Barrels	Total
Frantz Corp., Brown, 1	120.28	
Frantz Corp., Brown, 3, 4	4,127.36	
Frantz Corp., Brown, 6, 7	4,182.42	
Frantz Corp., Charles, 2	1,527.46	
Frantz Corp., Clayton No. 7; 1, 5, 6, 9	40,001.86	
Frantz Corp., Clayton No. 7; 2, 3, 4, 7, 8, 10, 11, 12	28,956.21	
Frantz Corp., Clayton No. 7; Government 1, 2, 3	10,068.68	
Frantz Corp., Clayton No. 7; Green 1 to 9 inclusive	61,218.86	
Frantz Corp., Fifer, 1	125.00	
Frantz Corp., Harlan, 1 to 6 inclusive	9,396.90	
Frantz Corp., Wood, 2, 3	1,890.94	
Total		161,915.99
Mid-Northern Oil Co., Benson, 1, 2, 3	1,697.42	
Mid-Northern Oil Co., Clayton No. 10; 1, 2, 3, 4	4,140.36	
Mid-Northern Oil Co., Clayton No. 10; Wildschutz 1 to 4 inclusive, 6, 7 8	40,041.01	
Mid-Northern Oil Co., Clayton No. 18; 1, 2, 3	4,501.40	
Mid-Northern Oil Co., Clayton No. 18; Green 3, 5, 10, 12, 15, 17	17,015.78	
Mid-Northern Oil Co., Cleary, Green 1, 8, 14, 16, 18, 19	19,961.32	
Mid-Northern Oil Co., Cleary, Green 7	701.52	
Mid-Northern, Cleary, 1	2,982.92	
Mid-Northern Oil Co., Clayton No. 10; Catlett 4	3,378.28	
Mid-Northern Oil Co., Geyser No. 3; Catlett 1, 2, 3, 5, 7	25,700.10	
Mid-Northern Oil Co., Fifer	801.88	
Total		120,921.99
California Co., Van Tassell, 1, 2, 4, 6	13,712.77	13,712.77
"56" Petroleum Corp., Ihde (56 Petroleum), 1, 2, 3, 4, 6, 7, 8, 9, 10, 11	1,411.20	
"56" Petroleum Corp., Ihde (Moulton O. & R.), 1, 2, 3, 4, 6, 7, 8, 9, 10, 11	9,292.92	
"56" Petroleum Corp., Ihde (Yale Oil Corp.), 1 to 11 inclusive	17,019.82	
"56" Petroleum Corp., Ihde (Yale Oil Corp.), 1	391.50	
Total		28,115.44
Arro Oil & Ref. Co., Miller (Great Western), 1, 2, 3, 4	4,247.68	
Arro Oil & Ref. Co., Miller (Hover Schwartz), 1, 2	1,924.22	
Arro Oil & Ref. Co., Miller (Lucky Strike), 1, 2	1,166.00	
Arro Oil & Ref. Co., Miller (H. H. Schwartz, Jr.), 1, 2, 3	1,491.36	
Arro Oil & Ref. Co., Miller (Thermp. C. Creek), 1, 2, 3, 4	2,807.24	
Arro Oil & Ref. Co., Miller (Unit Petroleum), 1	365.86	
Total		12,002.36
Homestake Oil Co., Homestake-Benson, 1, 2, 3, 4	4,480.78	
Homestake Oil Co., Homestake-Oldham, 1 to 13 inclusive	33,672.10	
Total		38,152.88
West Dome Oil Co., West Dome-Rhens, 2, 3, 6, 7, 8, 11, 12, 13, 14	7,261.26	
West Dome Oil Co., West Dome-Rhens, 4	166.36	
Total		7,427.62
Golden West School, Sec., 1	1,669.56	1,669.56
Tip O'Neill, 1, 3	1,636.80	1,636.80
Geyser No. 3, Catlett, 6	570.36	570.36
Fradd, 1, 2, 3	1,513.10	1,513.10
Total Cat Creek, second quarter		387,638.87
Total Cat Creek, first quarter		416,186.17

SUNBURST FIELD

Total Mutual Oil Co., second quarter		26,072.90
Ohio Oil Co., second quarter		263,734.32
Homestake Exploration Co., second quarter		52.42
Franklin Oil Co., second quarter		184.91
Standard Refining Co., Illinois Pipe Line		7,204.05
Alberta Refining Co., second quarter		6,043.49
Sunburst Oil & Gas Co., second quarter		5,260.94
Vanmeer Oil Syndicate, second quarter		6,095.16
Seattle, Foster Oil Co., second quarter		7,451.37
L. O'Neill		2,746.80
Total		325,854.36
Total, first quarter, 1924		22,579.63
Total runs, Cat Creek and Sunburst Fields for first quarter		435,966.86
Total runs, Cat Creek and Sunburst Fields for second quarter		713,493.23

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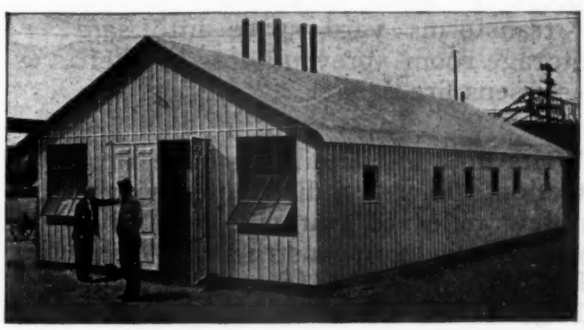

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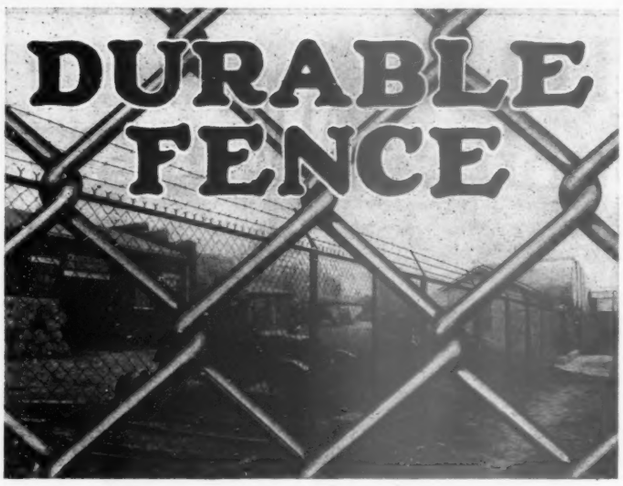

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PAGE
PROTECTION FENCE

CENTRAL WEST

(Continued from Page 58)

E. S. Stewart farm, Section 28, was a duster. In Rome Township, same county, Cook, Rice and others have a gas well estimated close to 1,000,000 feet in a test on the W. B. Rice, Section 23, and drilling No. 2 same farm.

The East Ohio Gas Co. made a location for a test on the G. W. Stelter 40 acres, Lot 98, Strongville Township, Cuyahoga County.

In Grafton Township, Lorain County, the East Ohio Gas Co. has a fairly good gas well at a test on the H. B. Beldon farm, Lot 74. In Columbia Township, same county, the Wiser Oil Co. has a location for a test on the G. J. Herold 70 acres, Lot 28.

In York Township, Medina County, the Logan Gas Co. has an average gas well at a second test on the George L. Morelock farm, Section 7, and drilling No. 2 on the H. G. Wolfe 156 acres, Section 11, and No. 2 on the George F. Gunkleman 100 acres, Section 2. The East Ohio Gas Co. is drilling a test on the W. C. Stillwater farm, Section 13, and the Ohio Fuel Gas Co. made a location on the Elizabeth Mayer 26 acres, Section 6. In Brunswick Township, the Central Ohio Gas Co. is drilling a wildcat well on the D. F. Tillotson 88 acres, Section 4.

In Liverpool Township, Medina County, the Wiser Oil Co. drilled a dry hole in its second well on the Charles Frambaugh farm, Section 23. In Harrisville Township, the Ohio Fuel Gas Co. has a location on the Aggie E. Daniels 19 acres, Lot 80. In Litchfield Township, the Logan Gas Co. has a very nice gas well in a test on the John Schultz farm, Lot 56, and drilling No. 1 on the George E. Kennedy 38 acres, Lot 56. In Westfield Township, Hulse & Koontz have a rig under way for a test on the Frank Cinci 149 acres, Lot 49.

In Clay Township, Knox County, the Heisey Gas Co.'s No. 1 on the C. Matthews 100 acres, Section 13, is a very light gas well. In Brown Township, same county, the East Ohio Gas Co.'s No. 1 on the Allen Scholes 33 acres, Section 30, pumped but about 1 bbl. Same company has made a location for No. 1 on the S. J. Cross 80 acres, Section 13, Jefferson Township, same county.

W. KENTUCKY-TENNESSEE

(Continued from Page 60)

is something like 300 locations yet to drill. Out of 32 strings of drilling tools, but 15 are working on new wells, while the others are either cleaning out old wells or hung up on account of the low price of oil.

Drilling tools in the South Weir sand field of Johnson and Magoffin Counties, are being hung up about as fast as new wells are brought in, and about the only drilling that will be done will be to conform with lease conditions and requirements. It is announced that R. G. Gillespie, the Bed Rock Oil Co., Structure Oil Co., Cumberland Petroleum Co., Oliver Jenkins, Virginia Gasoline & Oil Co., Burning Fork Syndicate, Kentucky Counties Oil Co., Carter Oil Co., Petroleum Exploration Co.; New Domain Oil & Gas Co., Atlantic Oil Producing Co. and other large operating concerns are making preparation to let up further development work until conditions improve.

In the Idamay district in Lee County, only eight strings of drilling tools are accounted for, against 21 strings a few weeks ago. This condition prevails to a large extent in every producing field in Kentucky.

Boonsboro Wildcat

The last week has seen a large number of operators, oil scouts, and others looking over the most important wildcat well drilling anywhere in Kentucky. This well is being drilled by J. N. Thompson and associates on the D. J. Williams farm, near Boonsboro Beach, along the Kentucky River, in the northern part of Madison County. The surface indications around this test well look more inviting to the visiting oil men than that in the Irvine Field of Estill and Powell Counties did in the early days of their development.

The Williams farm test is reported at a depth close around 200 feet, and if it proves a commercial producer much new work will be started, regardless of the price of crude. When the well is completed the tools will be moved to the old well on the C. W. Cobb farm, 2 miles south of Boonesboro station, that was drilled to a depth of 1,050 feet, and deepened to 1,250 feet or more, to test the lower formations.

Eastern Kentucky Completions

Recent completions in the Eastern Kentucky fields were reported from the various counties as follows:

County—	Comp.	Oil Wells	Prod.	Dry	Gas
Lawrence-Johnson	12	12	145	6	1
Johnson-Magoffin	15	15	168	0	1
Lee	5	5	67	0	1
Wayne	3	2	5	1	1
Elliott	3	2	10	1	1
Floyd	3	0	0	1	1
Total	41	36	395	3	2

South Weir Sand Field

In the South Weir sand field of Johnson and Magoffin Counties, Oliver Jenkins made three nice strikes in his Nos. 4, 5 and 6 Salyer heirs farm, with a flush of 30 bbls. each. The Bed Rock Oil Co.'s No. 27 W. H. Conley farm, is credited with 5 bbls.

C. C. Bosworth's Nos. 1 and 2 Porter Borders, are reported at 1 and 2 bbls. respectively, while his Nos. 1 and 2 D. B. Cooper farm are reported at 1 bbl. each. The Virginia Gasoline & Oil Co.'s Nos. 2 and 3 Green Risner farm are rated at 5 and 10 bbls.

The Carter Oil Co.'s Nos. 2 and 3 Elizabeth Salyer farm are estimated at 8 and 10 bbls. Kentucky County Oil Co.'s No. 5 C. E. Roark is reported at 10 bbls.; J. G. White's No. 3 J. G. White farm, 5 bbls; Burbing Fork Syndicate's No. 7 C. Roark farm, 20 bbls.

North Weir Sand Field

The North Weir Field of Lawrence and Johnson Counties reports some wells that have been drilled in for some time, but not reported. The Cumberland Petroleum Co.'s Nos. 6 and 7 W. M. Boggs farm, in the north part of the field, are reported at 2 bbls. each; No. 4 J. M. Wheeler shows 2 bbls, as does No. 2 A. Wheeler farm; Nos. 7 and 8 Sena Hamilton farm are reported at 3 and 2 bbls.

The Union Gas & Oil Co.'s No. 3 John Rose farm is reported at 25 bbls. and No. 16 Levis Skaggs farm, at 40 bbls.

The Weideman Oil Co.'s No. 9 L. Wright is reported at 12 bbls., and No. 3 William Wright at 25 bbls.

The Keaton Oil & Gas Co.'s Nos. 27 and 28 Jesse Lyons farm, is estimated at 20 and 10 bbls.

Idamay Field

In the Idamay Field, along the line of Owsley-Lee Counties and in Lee County, the recent completions are not as productive as the earlier wells. Hupp, Duff and othes' No. 13 Dave Mays heirs farm is good for 22 bbls., and No. 1 George Porter farm, 100 bbls. This latter well is in advance of present production and makes this area look very inviting for future prospecting.

The Halley Producing Co.'s No. 8 Gourley-McGuire land, in the Idamay Field, produced 5 bbls.

In the Beattyville area of the county, the Superior Oil Corp.'s Nos. 20 and 21 J. D. Smythe are reported at 4 and 6 bbls. respectively.

Wayne County

In the Monticello district of Wayne County, the Bridgeman Oil Co.'s well on the M. F. Smith farm is estimated at 4 bbls., while J. A. Barrett and others' No. 8 Mary Hatfield is only a 1-bbl pumper.

Wetzel and Dillon's No. 3 Denny heirs farm, that looked like a sure well, came in a dry hole.

Elliott County

One of the coming fields of eastern Kentucky only partially tested out is the area around Sandy Hook, in Elliott County. So far the completions have been small.

T. J. Evan's No. 1 R. Bentley farm is estimated at 2 bbls. and his No. 1 on the Dock Lewis farm at 8 bbls.

The Indian-Tex Petroleum Co.'s test

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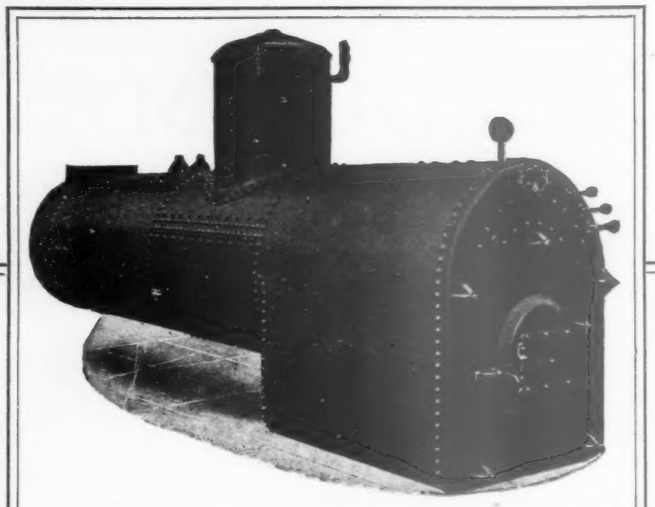

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Louisiana, Arkansas and Houston, Texas—Petroleum Supply Company

on the Paris Gillima, completed some time ago, is listed as a duster.

Floyd County

In the Hueyville district of Floyd County, south of Johnson County, the Pennegrade Oil & Gas Co. recently drilled in a gas well on the C. D. Patrick, estimated at 5,000,000 feet open flow, while its No. 2 R. Moore farm was a dry hole.

C. A. Sears drilled No. 1 W. H. Connelly farm is estimated at 5,000,000 feet of gas.

Cumberland Runs

The runs of the Cumberland Pipe Line Co., through its eastern Kentucky gathering lines for the week ending August 2, totaled 86,137.02 bbls. for a daily average of 14,356.17 bbls.

PENNSYLVANIA PICNIC HELD IN LOS ANGELES

Frank J. Newton, a Bradford, Pa., oil producer, was in Los Angeles, Cal., recently, and while there attended a Pennsylvania picnic. There were hundreds present from McKean, Warren, Elk, Forest, Venango, Crawford, Clarion, Butler, Allegheny, Washington, Westmoreland and Green counties, all of them oil or gas producing territories, but the crowd Mr. Newton was particularly interested in were the former residents of towns in the Bradford oil field. Of these he found over 300 registered and of the 300 he met 41 old neighbors and friends from the once lively oil town of Rixford where he resided in the flush days of the Bradford Field. Among those he met in Los Angeles was Martin H. Mosier, who built the first gas station in the Bradford Field and laid the first gas line from Rixford to Bradford for C. E. Hequembourg, whose company afterwards became a part of the Barnsdall gas interests at present the Union Natural Gas Corp.

ARKANSAS CITY BRIDGE BUILT BY BUSINESS MEN

The bridge across the Arkansas River near Arkansas City, Kans., is an example of the enterprise of the business men of that city who subscribed about $20,000 for its construction that they might have a direct and short route to the Rainbow Oil Pool, which in the past six months has developed into one of the potential oil fields of Kansas.

The bridge is 400 feet long and 18 feet wide, and purported not only to be the first substantial bridge built across the Arkansas River by popular subscription, but also the most substantial pile bridge across this river anywhere. The piles are driven from 6 inches to 6 feet into rock and the bridge stands 2 feet above the highest water mark.

This bridge furnishes the shortest route to the Rainbow Pool, and is also 2½ miles south of the Graham Oil Field. Cowley County's newest oil producing area in the Wilcox sand at 3,500 feet.

ROGERS-IMPERIAL GASSER

In the Sweetgrass-Coutts region, Canada, drilling at the Rogers-Imperial gasser has now reached the first sand of the Kootenai, it is reported, with no further development. The flow of gas, measured at 62,000,000 feet, has been controlled while the well is being deepened. No. 2 well is rigging up.

GOOD WELLS AT RICHLAND

CORSICANA, Tex., Aug. 12.—In the Richland Field, Navarro County, the Sun Oil Co.'s No. 11 W. P. Brown, White survey, is a 900-bbl. well in sand at 2,899-2,948 feet. Tucker & Fox have a well making 1,800 bbls. from sand at 2,895-2,946 feet in No. 2 Davis, John White-Choate (overlapping) surveys.

WILBUR TO VISIT TEAPOT DOME

On the return of Secretary of the Navy Wilbur from his proposed trip on inspection of the Pacific Coast Navy Yards on which he will start August 21, he will stop at Casper, Wyo., and visit the Teapot Dome Naval oil reserve.

Motor Truck Use Is Rapidly Expanding; Production Growing

Perhaps the brightest spot in the entire automotive field today, and from present indications the spot that will continue to grow brighter with each passing month, is the truck industry, according to E. E. Sieg, general sales manager of the Republic Motor Truck, Inc.

"No matter where you turn, you find the motor truck indispensably woven into the fabric of industrial activity," Mr. Sieg continued. "Even the railroads—once the bitter enemies of the motor truck—are beginning to see its advantages as a definite part of their own transportation systems. In many places the railroads are using trucks to solve the congestion of freight in the large freight terminals. Trucks, too, are replacing the shorter auxiliary lines both for carrying freight and passengers.

"As a result of the development of the motor bus the large centralized schools in rural districts have replaced the little red school house, and the children of farmers are enjoying industrial advantages equal to those of the larger cities.

"One of the strongest assurances of the future of the truck industry is the tremendous good roads program which is under way in every State in the Union, as well as in a majority of foreign countries. Every additional mile of good roads enlarges the market for trucks and busses. When it is considered that many millions of dollars are being spent annually by national, State and county governments on road building programs, the significance of this statement becomes clear.

"Every industrial and commercial institution is rapidly motorizing its transportation system—express companies, ice companies, milk companies, department stores, factories, newspapers—all of them have turned to the motor truck, not only for more economical transportation and distribution of their products, but for greater speed and efficiency.

"Truck production is growing steadily and no man can say what the limit may be. The surplus stocks of trucks which were found on hand with the close of the war have been used up. The truck manufacturers will never allow such a situation to occur again. They are following sane, conservative policies in their production programs, instead of attempting to expand their business with tremendous overnight strides. The first four months of 1924 showed an increase in sales of 21 per cent over a corresponding period of 1923. This, despite the bugaboo of president elections and a lot of other pessimistic talk."

BOOKLET ON UNDERREAMERS

An interesting booklet on underreamers has just been published by Wilson & Willard Manufacturing Co. in Los Angeles. It differs from the usual catalog form in that the complete story of the manufacture of underreamers is given, profusely illustrated with actual photographs of production operations. The reader is shown the various phases of manufacturing so an intelligent idea of the care taken in finishing underreamers is obtained.

TO CANCEL WIND RIVER LEASE

The Government has filed suit at Cheyenne, Wyo., against the Associated Oil & Pipe Line Co., to cancel the lease granted by the Department of the Interior on September 21, 1918, on land adjacent to Wind River Meridian Mountain.

STINNES OIL IN NORWAY

A consular report says the Stinnes oil interests are competing strongly with American and British companies in Norway, recently having established first branch at Bergen, using modern steel lighters equipped with pumping facilities.

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REFINING AND MARKETING

High Quality Oil In Rosecrans Well Creates Sensation

LOS ANGELES, Cal., Aug. 16. — A sensation was created in California a few days ago when the report gained circulation that the crude coming from the sand tapped by the Superior and Union wells in the southeast corner of the present development at Rosecrans (5 miles from the main business district of Los Angeles) was from 40 to 42 gravity. Below are given the results of an actual distillation of this crude.

Gravity.....40.8° A. P. I.
M. & B. S.....0.2%

Straight distillation from the crude in 2 per cent fractions:

Fraction	Gravity at 60° F.
1	82.2
2	71.9
3	64.5
4	63.8
5	61.1
6	59.3
7	58.0
8	56.7
9	56.0
10	55.3
11	55.0
12	54.4
13	53.7
14	53.1
15	52.2
16	51.6
17	50.4
18	50.1
19	48.9
20	48.1
21	47.5
22	46.5
23	46.0
24	45.1
25	44.3
26	43.3
27	42.4
28	41.9
29	40.9
30	40.5
31	39.5
32	38.8
33	38.0
34	37.1

Summary:
29.33% 60.0° A. P. I. gasoline.
64.00% 52.0° A. P. I. tops yielding about 90% New Navy gasoline on rerunning.

There is a very good probability that these wells will be put on production within a few days. The bringing in of commercial production of such high quality is looked upon in California at present with decidedly mixed feelings. The oil is about as fine as any ever produced in quantity on the Pacific Coast, but market conditions are such that there is just one thing which is not wanted and that is more gasoline.

COMPRESSOR STATION ON WELDA, KANS., LINE

BARTLESVILLE, Okla., Aug. 16.—Construction of a compressor station at Welda, Kans., on the Kansas Natural Gas Co. pipe line system is announced by the Empire companies. The new station will gather gas from approximately 114 wells in Anderson County for delivery into the main pipe lines serving Kansas City and several cities and towns in northeast Kansas. The main engines, single acting twin units rated at 160 horsepower each, will be installed early next month.

Normal pressure of wells in the Welda Field has dropped below that maintained in the pipe lines, making the new station necessary to enable producers to market their gas and continue earnings on their investments. The Welda Field, less than 2½ years old, at one time produced 450,000,000 feet open flow at an original rock pressure of 280 pounds. Operation of the new station will prolong the life of the field materially, conserving the gas, and insuring domestic customers continued service over a longer period.

The history of the Welda Field, an extension of the original Colony Field, is comparable to that of many other early Kansas fields. Depletion is fairly rapid and the pipe lines company is forced to provide artificial means of delivering the gas remaining in the producing horizon after the natural pressure in the wells drops below that in the pipe line system.

ONE OF PIONEERS IN MAKING BRIGHT STOCK

J. W. King, superintendent of the Okmulgee, Okla., refinery of the Allied Refining Co., is one of the oldest refiners in the Mid-Continent and has the added distinction of being one of the pioneers in making bright stocks. Mr. King was assistant superintendent of the Conewango refinery at Warren, Pa. early in 1903. Some attempts had been made to produce a lubricant which would not congeal during the winter. Neutrals were being made then by chilling the cracked wax distillate and removing the crystalline wax by pressing as is the practice today. Lower cold tests on steam refined cylinder stocks had been secured by dilution with neutral oils and degras up to that time, the neutrals thinning out the amorphous wax content. Filtering cylinder stocks for color had been in general use at that time and the cold test had been averaging 65-75 degrees.

Need was seen for a lower cold test cylinder stock and Mr. King hit upon the idea of cooling the stock and precipitating the amorphous wax. In his experimentation, he filled a 12-gallon glass

J. W. King

carboy with a 54-gravity mixture of cylinder stock and benzine, 25 per cent stock and 75 per cent benzine. The temperature was around zero and as a result the overnight expose of the mixture to the atmosphere precipitated the amorphous wax. The top of the carboy's contents was then siphoned off to the wax level and the benzine was removed by distillation in a 1-gallon laboratory still. The residue was cleared up and filtered to color by passing through animal bone.

The success of the method for securing a low cold test lubricant was assured the refiners as a result of this experiment and Mr. King accordingly made up a like mixture, using a larger quantity which almost filled a 250-bbl. tank. The liquid was allowed to cool for several days and the top portion was then taken off, after sampling had shown a settling of the amorphous wax. The benzine was removed and the residue was filtered, making what Mr. King asserts was the first commercial bright stock.

When his concern found that a low cold test oil could be made in this way, two 500-bbl. tanks were constructed and insulated and three sets of brine coils were inserted in the tanks. The first set was fixed 2 feet from the bottom, the second was in the center of the tank and the third set was 2 feet from the top. In this way cold settling was carried on during the entire year. Later improvements hurried the operations considerably, but the start for the commercial work was done at the Conewango Refining Co.'s plant, Mr. King says. At first the wax would settle in three or four days during the winter. It took six or seven days to do the same work in summer. Better insulation and better processing have speeded this work. The original bright stocks were called LM and HM stocks by the company.

First filtering was done through ground and burned bone dust which acted much as the modern Fuller's earth in clearing the bright stock solution. The bone was cleaned and burned as many as 10 or 15 times before it was discarded. Use of bone for filtering proved very expensive and the discovery of the more economical practice of using Fuller's earth followed in a year of two, Mr. King says.

The use of centrifuges for removing the amrophous wax from the bright stock solution in place of the cold settling method is a development of recent years. This operation has facilitated the work of bright stock manufacture considerably.

At the time of his connection with the Conewango Refining Co., Col. U. G. Lyons was superintendent, and lubricating problems brought about by the introduction of the internal combustion engine were just being taken to the refiners and lubricant makers.

SALES ARE INCREASING IN EASTERN MARKETS

NEW YORK, Aug. 16.—Pure Oil Co.'s sales of petroleum products in Eastern marketing territories are showing great increases over a year ago. These results are being attained through additional facilities for the handling of such business. Besides its Marcus Hook, Pa., refinery, the company's Eastern requirements are partly supplied from its new Smiths Bluff refinery, located on the Texas Gulf Coast and shipped by the company's tankers to the Eastern seaboard.

In the metropolitan acre, the Pure Oil Co. has added 32 new drive-in service stations advantageously located at points of heavy motor travel throughout the district. The business of these stations is rapidly growing in volume and besides have proved most effective in making Pure Oil products better known to the motoring public.

The company has added to its marketing organization at other points in its Eastern distributing organization, strengthening the company's possessions in the territory and adding to the volume of its sales. Officials of the company believe that its current fiscal year will be the largest in its history in the volume of its Eastern sales.

HAWKEYE OIL CO. SUES TO ENFORCE CONTRACT

CHICAGO, Aug. 16.—The Hawkeye Oil Co. has brought suit at Marion, Iowa, against the Westside Lubricating Co., of Cedar Rapids, Iowa, and the Standard Oil Co., (Ind.) asking for an injunction against the defendants to prevent them from substituting the products of the Standard company in the sales by the Westside Lubricating Co. The Hawkeye Oil Co. claims that having entered into a contract with the Westside Lubricating Co., for the exclusive sale of its product and expended considerable sums in advertising the fact that its products were for sale by the first named defendant, the latter has notified the plaintiff of its intention to desist from the sale of the Hawkeye goods and substitute the product of the Standard Co. The Hawkeye Co. asks an injunction against the defendants to prevent the substitution and to oblige the Westside Lubricating Co. to fulfill the alleged contract. A similar suit was instituted the same day at Anamosa, Iowa, the Hawkeye Co. states.

UNITED CENTRAL PLANT MAY RESUME JANUARY

HOUSTON, Tex., Aug. 16.—United Central Oil Corp. merged interests of the Crown Oil & Refining Co. and White Oil Corp., with a 3,000-bbl. refinery on the Houston Ship Channel, closed down practically complete now for nearly a year, begins to assume aspects of resumption of runs. It is expected that operation will start about January 1. The United Central has expended $100,000 in plant and terminal improvements. Two 80-bbl. steel storage tanks are an added feature. The company is also laying 12½-inch loading lines to dock on the Ship Channel and dredging its terminal waters to 30 feet. This will permit the largest vessels afloat to discharge and load at the United Central dock. The company, too, is bunkering the whole water front.

The terminal feature of the refinery is very busy even though the stills are fireless. The company is receiving 16,000 bbls. daily of Luling crude for account of the Atlantic Refining Co., whose production unit, Atlantic Oil Producing Co., is extensively developing the Luling Field. During the shut down, the company has been clearing its warehouses of accumulated stocks of lubes, gas and fuel oils. The company refines everything except gasoline and kerosene.

OFFER FOR INDIAHOMA MADE BY CREDITORS

ST. LOUIS, Mo., Aug. 16.—A committee of creditors has filed an offer of $567,000, plus accrued taxes, with the referee in bankruptcy, for all the properties of the Indiahoma Refining Co., here. Hearings on the offer and on an amended petition of sale, free of lien, were set for September 2. The property includes a refinery at Okmulgee, Okla., and another at East St. Louis, Ill., leases in Oklahoma, Texas and Arkansas, tank cars, pipe lines, tankage and field equipment.

If the offer of the creditors is accepted a reorganization plan will be launched for a $500,000 bond issue and the retirement of the $1,682,000 in bonds and accrued interest now outstanding by the issuance of a new 6 per cent bond to the holders of the old bonds. The concern was placed in bankruptcy February 1, 1924, liabilities being listed at $2,730,378.52 and assets at $4,351,427.78.

N. P. M. A. TO MEET CLEVELAND, NOV. 18-20

The fall convention of the National Petroleum Marketers Association will be held at Cleveland, Ohio, November 18 to 20 inclusive. These dates have been definitely decided upon according to an announcement of L. V. Nicholas, president of the association. The convention will be held i nthe auditorium which in June housed the Republican national convention.

It is planned to have the convention the largest in the history of the association. Part of the program has already been arranged. The entire program will be announced in the near future through a specially prepared booklet. Provision for reduced railroad fares has already been arranged.

LUB PLANT FOR WATSON, CAL.

LOS ANGELES, Cal., Aug. 16.—The Pan American Petroleum & Transport Co. has started work on a lubricating plant at its refinery at aWtson Station, near Wilmington. Wit hthe completion of the lubricating plant this refinery will be making all major products derived from California oil except asphalt, and it is possible asphalt manufacture may be started in the near future.

The higher gravity and better quality of gasoline produced by the Dubbs Cracking Process is not its only or perhaps even its greatest point of merit, but it should be a decided advantage to every refiner

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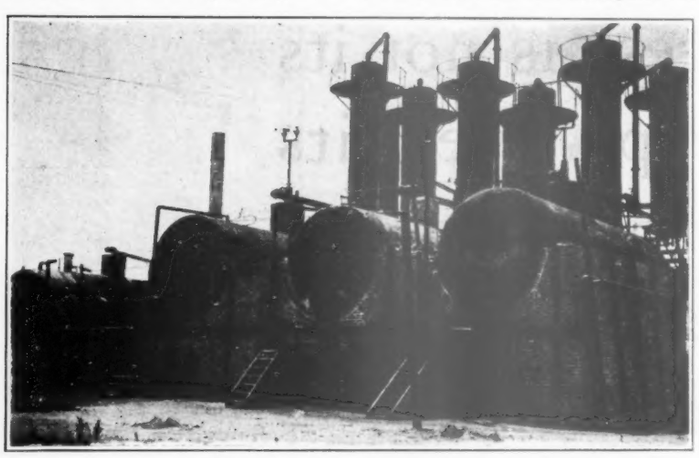
Skimming Plant That Weathers Storms

Specializes on Steam Refined Cylinder Stocks and Wax Distillates and as a Result Sells No Fuel Oil

By Ralph T. Baker

The history of the refining branch of the petroleum industry has been filled with the story of the untimely death of innumerable skimming plants. These small and inefficient refineries were started by the score a few years ago as the result of the continued completion of wells in new areas of the Mid-Continent and the readiness with which the cheap crude could be secured. Built in a day, many of these plants flourished promisingly for a short time, and then wilted and died when crude prices increased and refined prices dropped. The past three years have seen many refineries closed, torn down or allowed to rust as the result of increased competition and the absolute necessity for more efficient working methods in refinery operations.



Front view of three main stills, Allied Refining Co., with small slop still at left.

It is no secret that a number of the skimming plants in the State are still having a hard time to weather the storm of adversity which has buffeted them for several months. Many have been able to keep on their feet through the acquisition of new capital; others have had sales managers who have done a marketing business on the side in such a successful manner that they have pulled the manufacturing end of the business out of the hole. Still others have made alliances with producers and pipe line companies to their distinct benefit and many have made connections with large jobbers. Several have built a string of service stations to take care of the output of their plants.

Too Much Gasoline

The shrewd refiners saw the beginning of the end of the skimming plant operation several years ago. At that time gasoline was carrying the burden of refining, much as it is still doing. In other words, gasoline was the main product and was responsible for the larger portion of the revenue. It was natural then, that refiners should turn to the proposition of making more gasoline from the barrel of crude than formerly. The result was the installation of cracking processes in a large number of refineries.

For a time it was thought that the production of an additional amount of gasoline from the barrel of crude would pull the Mid-Continent refiners "over the hill." The increased amount of gasoline manufactured, however, coupled with two late marketing seasons, proved disastrous to the refiners, who were forced to watch gasoline prices drop to low levels. Many of them have been absorbing losses consistently as a result.

There is a feeling among many refiners now that processing methods of the skimming plants of the Mid-Continent are wrong. Several have been frank in their expressions that the industry might have started at the wrong end. They believe that the rush for the manufacture of gasoline has neglected a vital factor in the refining business, which is the making of lubricants and the utilization to the best advantage of the heavier ends of the oil charged to stills.

Skimming Plant Method

The typical Mid-Continent skimming plant of 1,500 to 3,000 barrels capacity has utilized the continuous method of treating the crude oil. In other words, the distillation has been accomplished in a series of shell stills, generally five or six, in which the lighter vapors are taken from the first still and condensed as gasoline, a second cut of heavier gasoline or naphtha is taken from the second still, a third cut produces kerosene, a fourth gives straw distillate or gas oil, and so on until the residue discharged from the bottom of the last still has been denuded of the more salable products. This residue, known as fuel oil, is then marketed at a relatively low price, in comparison to the other products. Fire distillation is used ordinarily and the oil as it is skimmed flows by gravity in many cases from one still to the others which are fired more intensely.

The wastefulness of this method of operation has been the subject for much unfavorable comment by many refiners. The installation of cracking processes for the utilization of the heavier cuts and fuel oil in making gasoline staved off the necessity for more serious thought concerning the fundamentals of refining operations by many refiners. The low prices for gasoline have shown them that this product cannot bear the entire burden of refining in the future as it has in the past, and that every barrel of crude charged to their stills must be converted into products which will bring the maximum revenue.

Making Special Cuts

Several refiners have recognized this necessity and have converted their processing so that they have been able to make special cuts, which because of their scarcity have assisted in bearing the burden of the operating costs. Many others who were unable to do this have paid the penalty through insolvent companies and rusting plants.

The Allied Refining Co. has one of the few small skimming plants in the Mid-Continent which has been operating consistently and which apparently has suffered from the effects of bad marketing conditions much less than many small plants which are now in operation, and it has maintained its operations over a period of about six years during which many refiners in its immediate territory as well as the Mid-Continent have failed. The story of the method of operation at the Allied refinery at Okmulgee, Okla., shows why this concern has been able to continue its work while others have dropped from existence.

Has No Cracking Process

This plant has no cracking process. On the other hand it has specialized in the production of steam refined cylinder stocks and wax distillates, and as a result does not sell any fuel oil. Where other skimming plants almost universally have adopted the continuous method of fire distillation, this plant uses the batch method of combination fire and steam distillation. It is no secret that the production of steam refined cylinder stock has been one of the sources of large revenue for this concern. In other words, it has utilized the heavy ends to better advantage, allowing the lighter cuts of crude to "take care of themselves."

J. W. King, an old-time Pennsylvania refiner, is using Pennsylvania tactics in his refinery operations. "Two things are of utmost importance in the operation of small refineries," he said. "Care should be taken in the selection of crude, and extreme care and efficient methods of operation should be used in obtaining the largest possible recovery of every valuable part of the barrel of crude charged to stills."

Two High Grade Crudes

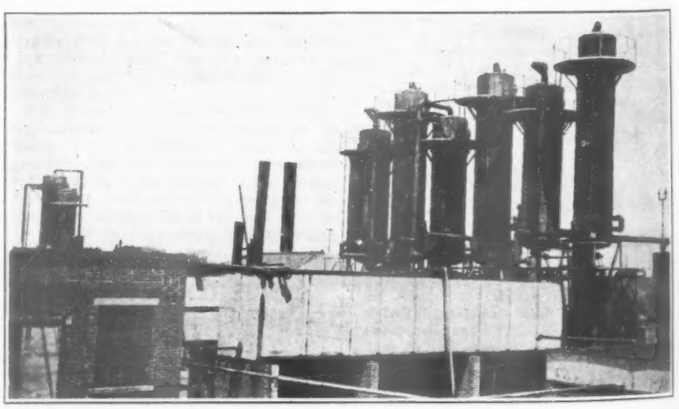
Because of this fact the company has been limiting its purchases to two high-grade premium crudes produced in the vicinity of Okmulgee. Typical specifications are as follows:

Morris crude—	Pct.
Gravity 45-46 degrees Baume.	
Crude bezine 54 grav.,	62
38-40 straw distillate	3
Gas oil	6
Wax distillate	11
Steam refined cylinder stock	16
Loss	2
11-11 crude—	
Gravity 38-39 degrees Baume.	
U. S. motor gasoline	33.8
Kerosene	12.4
Gas oil	29.2
Wax distillate	7.7
Steam refined cylinder stock	16
Loss	0.8

Two grades of steam refined cylinder stocks are made from the two different crudes, specified in general as follows:

From Morris crude—
22-23 gravity, green.
Flash 520-530° F.
Fire 590-600° F.
Cold test 40-50° F.
Viscosity 175-185 (210).
Tar ½ to 1%.

From 11-11 crude—
25.3 gravity, light green.
Flash 525° F.
Fire 600° F.
Cold test 10-20° F.
Viscosity 150-155 (210).
Tar ¼ to 1%.



View of Allied Refining Co. plant showing vapor lines, connections, condenser boxes and tail house.

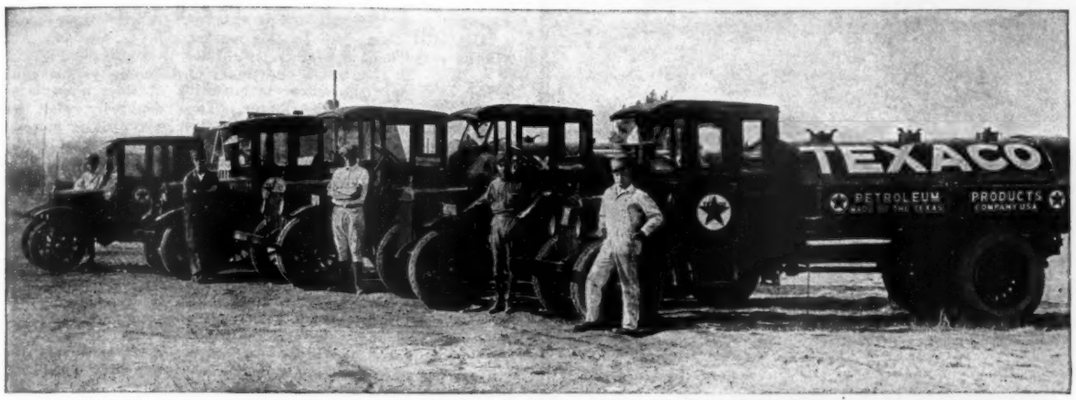
Operation of Plant

The plant operates with three main stills of 500 barrels capacity each. They are insulated and are fitted with perforated steam coils. In operation the stills are filled with about 400 to 450 barrels of crude. The two grades of crude used are not mixed. One specific grade is used entirely in charging the still. The entire cycle of these batch stills ordinarily runs close to 24 hours from charge to charge, but a shortening of the cycle does not permit the perfection in the products obtainable by the longer method.

It generally takes about 1½ to 2 hours to charge the still. The fire is then turned on and in about 1½ hours of slow heating the first light vapors are driven over and are recovered as gasoline or naphtha as the case may be. During this operation steam is turned into the still through perforated coils, and care is taken to regulate the heating so that the contents of the still will not "burn." The condensate is observed and when it reaches a specified gravity the valves in the tail house are switched and the condensate stream is turned into another run-down tank. When the gravity of the condensate reaches the gravity limit, the stream is again switched to another tank. The condensate gradually grows heavier as the lighter products are driven off. Four cuts are made, depending for their character upon the crude used. The remainder of the crude left in the still is sold as steam refined cylinder stock.

The care which is used in the early distillation operations determines the quality of the residue. Great care will give a uniform product which may be sold as steam refined cylinder stock if the proper crude has been used. Indifferent care will result in a product which is sold as fuel oil, as is the case in the continuous fire method practiced at a majority of the skimming plants in the Mid-Continent. At this plant, however, the heating of the still during the entire operation, together with the proper steaming and sampling of the residue, is considered the crucial feature of the distillation process. It takes about 18 to

(Continued on Page 104)



Thorobred Tank Fleets

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Thorobred truck tank fleets have their origin in the purchase of a Columbian Partition Mounted, 3-point Supported Truck Tank.

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Flash 520-530° F.

(Continued on Page 104)

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REFINERS FIRM AS DECLINE HALTS

Waiting Contest Between Manufacturers and Distributors. Price Unsettled. Inquiry for Distillates. Fuel Oil Firm. Gas Oil Same. Lubricants Drag. No Real Change in Tank Wagon Situation.

By J. B. Waldo

CHICAGO, Aug. 16.—In this market it looks very much as if there might be a test of the ability of the refiner to outwait the distributor. The distributor and the marketer had counted on a continued decline in gasoline prices. They based their belief that a decline would come upon the large stocks of gasoline and especially of crude and as they watched the production increase from week to week and the stocks of crude pile up from month to month these buyers of gasoline could see nothing but lower prices for crude and corresponding reductions in the refinery prices for gasoline. Now that the market has ceased to decline and many refiners are asking a higher price for their gasoline the jobbers are holding back and balking at paying the price. They call on the long distance phone and ask the price for Navy. They are quoted in most instances 7¾ cents, f.o.b. Group 3. They holler out loud and say that they will never pay it, they will be able to buy at 7¼ cents they claim in a few days and so on.

Of course they will and do pay the price rather than lose business and the question seems to be, so far as the present market is concerned, will the refiners be able to hold the price; will the jobbers be forced to purchase before the refiner has to sell? According to reports received here the smaller refiners have light stocks and the larger concerns are the ones that have the gasoline. They are also the ones that are asking the advance in prices. There are exceptions, of course, but the larger operators are asking 7¾ cents and they will not right now take less than that price for immediate business and many will not name any price except for the present. The jobbers will not as a rule pay more than 7½ cents. Many do not need the gasoline badly enough to force them into the market. When they do there is a little cheap gasoline still to be had from marketers but very little. Some one has got to change his mind and it looks right now as if the refiners would be successful in maintaining prices and that even a crude cut, if not for more than 25 cents, would not change conditions.

Weather Checks Consumption

The jobbers assert that the present consumption is not heavy. The weather is bad and the roads are not good. Farmers are busy trying to catch up on their delayed work. So for one reason and another the consumption is less than was expected and the increase in gallonage is less than hoped for.

There are hundreds of new distributors. Driving along the country roads the oil man must be struck with the number of new places where gasoline and lubricating oils are sold. Of course the number of distributors does not decrease the consumption, possibly the reverse, but they do cut into the profits and much of the chaos that is found in the industry today is due to the competition from these small distributors. One oil man who interviewed a number of these small wayside distributors said it would take the profits on two years' sales at the rate they were selling to pay for the pumps. Of course where the pumps are furnished or rented at a nominal price the pump cost is not so material to the seller of gasoline, but the natural inquiry is since the pumps cost money, where does the profit come in? Somebody must pay for them and their operation implies some expense.

Price Unsettled

The question of price is just now rather unsettled. There have been two or three of the larger refiners who were still quoting 7½ cents direct to the jobbers for Navy gasoline. They were watching to see if the price will hold. If they get enough business to take care of their immediate output they will undoubtedly raise their price. In the adjustment of prices the weather man will have a great deal to say, as he did in March and April. The country is having very little summer weather. We get some rain every 24 hours and this is holding the demand for gasoline back. At this writing there few if any responsible companies that are selling at 7½ cents. Many like Cosden, Pure Oil, Barnsdall, Empire, Roxana, are holding for 7¾ cents. One or two with nothing to ship right now are asking 8 cents but do not expect to sell at that price but are doing it to encourage the market. The price for 56-58—450 ranges from 7¼ to 7½ cents. The higher tests are practically unchanged but are now showing more strength although not freely offered. Natural gasoline is being quoted at decidedly higher figures and stocks of the two lower grades are light or so limited that deliveries are delayed but the absorption grade is to be had although at higher figures. It is assumed here that the demand is caused by the necessity for the enrichment of gasoline sold from storage.

Kerosene in Demand

Kerosene is in good demand. The orders come along steadily and from all parts so that the trade believes the business is healthy and normal and will continue. Stocks are apparent light and several refiners report they are sold ahead and have nothing to sell to the spot buyer. The lowest price is now 4¼ cents for the 41-43 grade and some are asking 4½ for the 41-43 and 5 cents for the 42-44 but do not want immediate business.

Distillates Not Moving Yet

Distillates for the oil burner are not moving as yet but there is a constant inquiry for contracts and some shipping will begin early next month. The market for the 38-40 distillate is now 3½ cents with an upward tendency. The burner makers have been pushing their campaign very strongly but while they talk in large figures they seem unwilling—perhaps they are unable—to name the exact number or even the approximate number of new installations made during the year. In fact, house owners are unwilling to contract during the summer for winter use although deferred terms are named and partial payments running over a year have been offered the writer has been unable to get any deal idea of whether the number of burners installed this summer is large, fair or disappointing. Still it would seem impossible that so much advertising and selling energy should have failed to get good results. The oil men believe the demand will be much larger than a year ago and they talk of sales of millions of gallons. Perhaps one reason for the reticence of the oil burner industry is that they do not wish to invite too much competition. They know what has happened in the gasoline side of the oil industry and also know that several coal men have added oil storage and are ready to sell oil or coal as the customer demands. It has been rumored but denied, that our largest but has a number of uncompleted comparts of the city has some idea of entering the oil business and the idea does not seem impossible if the sales of coal show a decided falling off. But so long as the city is growing at its present rate there should be enough business for both the seller of coal and of oil for fuel.

Fuel Oil Firm

Fuel oil is firm but there is a considerable difference regarding the market. One large refiner stated the market was 70 cents and another that it should be 85 cents for a good quality of 24-26 refinery fuel oil. The former is sold up but has a number of uncompleted con-

(Continued on Page 98)

Montgomery Spring Casing Hook

Absolute Safety!

TABLE OF NOMINAL SIZES AND CAPACITIES OF MONTGOMERY HOOKS:

Size (Inches)	Weight (In Pounds)	Capacity (In Pounds)
2½"	350 lbs.	29,450
3"	500 lbs.	42,400
3½"	570 lbs.	57,726
4"	1,000 lbs.	75,396
4½"	1,100 lbs.	95,500
5"	1,750 lbs.	117,810
5½"	1,850 lbs.	142,548
6"	2,050 lbs.	169,644
6½"	2,100 lbs.	199,098
7"	2,400 lbs.	230,910
7½"	2,500 lbs.	265,074
8"	2,800 lbs.	301,590

Your Drillers—Don't they deserve this Protection?

Three drillers were KILLED last year in Texas and Oklahoma alone, because their employers failed to protect them with a casing hook that was SAFE in fact as well as in name.

Dozens were injured from the same cause—some of them so seriously that they will carry the marks to their dying day—all because a hook was provided that was not the SAFEST that engineering skill could produce.

Because we know that drilling is hazardous at best, and because we know that every operator is anxious to give his men the greatest possible amount of protection, we determined to produce, as a TIFOCO product, a SUPER-HOOK—a hook that was SAFE as well as efficient.

We decided to MACHINE all parts after forging, in order to insure load suspension at theoretical center line, where the greatest load can be carried.

We decided on an oiling system that has proved a wonder—giving ample lubrication with practically no attention.

We decided to incorporate in one design (1) a double-swiveling spring hook; (2) a non-swiveling spring hook and (3) a non-rotating rigid hook.

We decided on an unfailing safety latch as an integral part of the hook, not an attachment.

We decided to make the factor of safety 10 TO 1 instead of 4 to 1 as in other hooks. A big difference—but then a human life can never be replaced.

Practice has more than proved the wisdom of special care in design and manufacture. Operator after operator is finding that the saving in casing threads alone more than pays for the Montgomery Hook. Most important of all, however, the operator who uses a Montgomery knows his conscience will never be troubled by the thought that a life lost or an injury sustained might have been prevented had a safe hook been provided. Note the table of sizes, etc., above. Then decide, for your own sake as well as your drillers' that your next hook will be a SAFE one—a Montgomery.

TITUSVILLE FORGE COMPANY

Titusville, Pa.

TIFOCO products are handled in the Mid-Continent and Coastal Fields by the Continental Supply Co.; for export, by the Continental Well Supply Co., 2 Rector St., New York. Special Mid-Continent Representative: L. S. Allen. Special Colorado and Wyoming Representative: L. E. Nebergall, 1375 Lincoln St., Denver.

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for 30 years the Seal of Satisfaction on Tanks and Refineries.....

The Warren City Tank & Boiler Co.
Warren, Ohio

EASTERN MARKETS ARE STEADIER AS CONSUMPTION BREAKS RECORD

By N. O. Fanning

NEW YORK, Aug. 18. — The eastern refined oil markets showed more steadiness during the past week than for many weeks, prices of practically all products showing no change. Greatly increased consumption, added to smaller production during July in eastern refineries, are given as the reasons for this improvement. So far in August refinery operations have registered a considerable increase. Eastern marketers have increased their purchases of Mid-Continent crude and refined oil by approximately 100,000 bbls. over the July rate. They are now taking considerably more than 400,000 bbls. daily from this source, shipping it by way of the Gulf Coast.

The August weather so far has been hot and humid, which has caused thousands of people to resort to their automobiles for evening and vacation trips. This has boosted the consumption of gasoline to a new record for all time. The practice of motoring long distances during vacation time has increased with the result that gasoline is in more demand in the smaller, interior points, as well as in the big cities. It is a remarkable thing that in spite of the enormous consumption of gasoline, prices can be maintained at present levels.

Exports Increase

Bulk exports of gasoline and kerosene showed a gain during the week. A feature of the export market was the shipment from New York of 2,491 tons of petroleum coke, of which 1,801 tons went to Holland. Crude oil exports were large, amounting to 11,532 bbls.

The following table shows principal exports of petroleum products from New York harbor during the past three weeks:

	Week Ended		
Gasoline:	Aug. 13	Aug. 6	July 30
Bulk (gals.)	2,194,643	1,567,224	1,342,473
Barrels	.....	3,120	.....
Cases	240,849	126,583	77,449
Kerosene:			
Bulk (gals.)	3,544,297	4,166,569	921,592
Cases	192,200	186,041	84,450
Fuel oil:			
Bulk (gals.)	.....	761,693	.....
Cases	.....	4,000	.....
Lubricating oil:			
Bulk (gals.)	142,158	192,000	160,500
Barrels	5,283	7,911	3,370
Cases	5,874	14,716	11,632
Lubricating grease:			
Barrels	.....	.....	1,385
Paraffin wax:			
Pounds	.....	1,610,180	2,461,480
Barrels	.....	2,890	.....
Petroleum coke:			
Tons	2,491	980	.....
Petroleum asphalt:			
Barrels	.....	6,584	.....
Crude oil:			
Barrels	11,532	913	1,930

Large exports of cased gasoline and kerosene were shipped to British South Africa, and to the Orient. Shipments of lubricating oil from New York were lower.

As to the future of the market, larger bulk shipments are anticipated to Europe. Inquiries are now being made, but actual contracts will depend on the outcome of the Dawes conference and may not be reflected until 1925.

Oil Receipts at Record

Receipts of crude and refined oil at Atlantic Coast ports during the past week averaged 691,000 bbls. daily, a high record, approaching the 700,000-bbl. mark as predicted several weeks ago in this column. The gain is accounted for largely by increased purchases of Mid-Continent oil. Receipts from the Gulf Coast averaged 416,000 bbls. daily against 431,000 bbls. during the preceding week, and a daily average for July of 318,000 bbls.

Receipts from the Pacific Coast also showed a material gain during the past week, averaging 184,000 bbls., a gain of 97,000 bbls. over the daily average for the preceding week.

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific Coasts of the United States, and imports, for the last three weeks, also monthly record since January 1, last, (figures in barrels):

	Week Ended		
	Aug. 13	Aug. 6	July 30
Gulf Coast	416,000	431,000	283,000
Pacific Coast	184,000	87,000	98,000
*Imports	92,000	75,000	99,000
Total	692,000	593,000	480,000

Daily Averages by Months	Gulf	Pacific	Imports	Total
July	318,000	85,000	114,000	517,000
June	302,000	133,000	136,000	571,000
April	262,000	143,000	123,000	528,000
May	276,000	122,000	144,000	542,000
March	201,000	137,000	130,000	468,000
February	174,000	175,000	108,000	457,000
January	127,000	159,000	79,000	365,000

*Imports largely from Mexico, but also from Curacao, Trinidad and Peru.

EASTERN RECEIPTS BY WATER SHOW MATERIAL DROP IN JULY

By N. O. Fanning

NEW YORK, Aug. 18.—Receipts of crude and refined oil at Atlantic Coast ports by water during July showed a material contraction, averaging 517,000 bbls. daily, according to The Oil and Gas Journal's estimate. This compares with a record average of 571,000 bbls. during June, and represents the lowest since that of March last.

In contrast to the decline in total receipts, receipts from Gulf Coast ports reached a new record for the year, averaging for the month of July 318,000 barrels daily, compared with 302,000 barrels during the preceding month, a further gain in receipts from the Port Arthur, Sabine and Beaumont district being responsible.

Receipts from the Pacific Coast fell to a daily average of 85,000 bbls., against 133,000 bbls. for June, a decrease of 48,000 bbls.; imports fell to 114,000 bbls., a drop of 22,000 bbls. compared with June.

The feature of the receipts, of course, was the sharp decline in receipts of California oil. The daily average of 85,000 bbls. for July is in sharp contrast with the record of 175,000 bbls. daily received during February. This is a decline of 90,000 bbls., or more than 50 per cent from the peak of the year.

The decrease in receipts from California and imports throws into relief the fact that the unfavorable condition of the petroleum industry can be traced almost wholly to overproduction in the Mid-Continent Field, now apparently the chief obstacle to higher prices for crude and refined oil.

The estimates of oil receipts at Atlantic ports by water are of increased value now, inasmuch as the refining and marketing concerns on the Atlantic Seaboard carry the bulk of their oil by water, and employ the transcontinental pipe line system chiefly for a comparatively small amount of oil received from the eastern and central west fields, due to the greater economy of tanker transportation for long hauls. One or two years ago eastern refiners received 50,000 to 100,000 barrels more oil daily by pipe line from the Mid-Continent than at present. The difference has been made up by the gain in receipts by tank steamer.

Total receipts of crude and refined oil from various sources at Atlantic Coast ports by months are estimated, based on capacity of arriving laden tankers, as follows (figures in barrels):

1924	Gulf	Pacific	Imports	Total
July	9,872,000	2,648,000	3,593,000	16,113,000
June	9,194,000	3,963,000	4,179,000	17,336,000
May	8,530,000	3,829,000	4,428,000	16,787,000
April	7,878,000	4,323,000	3,729,000	15,930,000
Mar.	6,271,000	4,255,000	4,059,000	14,585,000
Feb.	5,066,000	5,111,000	3,153,000	13,308,000
Jan.	4,579,000	4,938,000	2,468,000	11,277,000

Aggregate receipts during July, 16,113,000 bbls. show a decrease of 1,223,000 bbls. compared with June receipts, which amounted to 17,336,000 bbls., the largest monthly receipts so far this year.

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Use only about 1½% of the steam generated by the plant for operation.
Use any grade of fuel oil.
Operate with an oil temperature of less than 150° and an oil pressure of less than 30 pounds.
Will not "flare-back" or "back-fire."
Will not cause carbon deposits.
Will not clog-up or drip.

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PAINT IT FOR LESS MONEY WITH "BITULUMIN"

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Hope-built Hildebrand Heat Exchangers in a Hope-designed and Hope-built gasoline plant.

The Advantages of "UNIT RESPONSIBILITY"

Dealing with the Hope Company, you are dealing with an organization qualified and ready to assume entire responsibility for every detail, from preliminary design to completed work.

You are free from the worry and hazard of a responsibility divided among a number of individual concerns—each one of which may be competent, but working at a disadvantage because of lack of "team work" with the others.

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Engineering counsel, design, construction and contracting—in pipe lines for oil and gas, oil pumping stations, gas compressing and boosting plants, gasoline recovery systems, city and intercity gas mains.

UNIT RESPONSIBILITY

ENGINEERS CONTRACTORS HOPE Engineering & Supply COMPANY DESIGNERS MANUFACTURERS

MT. VERNON, OHIO, U. S. A.

OKLAHOMA FIELDS

(Continued from Page 42)

sand at 1,537,48 feet, 3,500,000 feet of gas, was plugged back from 3,000 feet: Skelly Oil Co.'s No. 1 Cruce, C SE NW NW, Section 23-2s-3w, sand at 2,740-67 feet, 125 bbls. naturally; Cameron's No. 2 Voorhees, C SW NE SW, Section 24-2s-3w, sand at 2,064-78 feet, shot with 30 quarts, 80 bbls.; Schermerhorn and others' No. 8 Sparks, C NE SW SW, Section 30-2s-3w, sand at 2,087-92 feet and 2,097-2,102 feet, 3,500,000 feet of gas. This well was drilled to 5,108 feet and plugged back.

In the Sayre territory, Beckham County, Santrock & Curtis' No. 1 Steadman, SW cor. SE NW, Section 14-9n-23w was abandoned as dry at 3,005 feet.

In Garvin County the Magnolia Petroleum Co.'s No. 1 Payne, NW cor. SW, Section 19-1n-5w, was abandoned as dry at 1,900 feet. The Texas Pacific Coal & Oil Co.'s No. 2, C SW SE SE, Section 8-1n-3w is a 60-bbl. well at 1,616-30 feet; same company's No. 8 Parnell, SW cor. NE SW SE, Section 9-1n-3w, was drilling at 1,410 feet, and its No. 3 Pierce, NE cor. SW, Section 13-1n-3w, has a 2,000,000-foot gas production at 1,632-69 feet, and 1,000 feet of oil in the hole. It was being cleaned out. The Magnolia Petroleum Co.'s No. 4, C NE NW SE, Section 16-1n-3w, and No. 9 Orr, C NW SE NW, Section 16-1n-3w, were rigs up.

The Schermerhorn Oil Co.'s No. 1 McGill, C NW NE SE, Section 8-3s-2w, Carter County, made a 75-bbl. well at 2,447-68 feet and 2,474-2,511 feet. The Magnolia Petroleum Co.'s No. 9 Harris, SW cor. NW NE, Section 25-1n-9w made a 30-bbl. well at 2,059-66 feet.

Avant & Anderson are drilling below 600 feet in No. 3 Wilson, C N half NW SE, Section 17-2s-7w, Stephens County. The Magnolia Petroleum Co.'s No. 6 Wilson, SE cor. Section 17-2s-7w was abandoned as dry at 2,940 feet.

Stroud Production

Following is the average daily production of the Stroud Pool for the week ending August 13:

Company and Farm—	Wells	Bbls.
Amerada Pet. Corp., Lewis	6	4.251
Amerada Pet. Corp., Welch	1	615
Roxana Pet. Corp., Zollers	6	2,476
Roxana Pet. Corp., Brace	2	502
Roxana Pet. Corp., Coyarka 1	1	392
Roxana Pet. Corp., Hood	2	1,853
Wolverine Oil Co., Jackson 2	2	363
J. A. Hull, Dowell	4	1,397
J. A. Hull, Pettitt	1	377
The Texas Co., Barber	1	146
Union Pet. & Supply Co., Smith	1	off
Union Pet. & Supply Co., Townsite	3	1,621
Waite Phillips Co., Jack	2	1,987
Wood & Farren, Jack	2	1,581
Willis Oil & Gas Co.	1	260
Total	35	17,821
Total last week	34	18,715
Difference	1	260

Tonkawa Production

Following is the daily average production of companies in the Tonkawa Field during the week ending August 13:

Company—	Wells	Bbls.
Amerada Petroleum Corp.	36	1,601
Blackwell Oil & Gas Co.	33	5,663
Carter Oil Co.	6	153
Champlin Refining Co.	2	32
Champlin Refining Co. and Twin State Oil Co.	1	52
Comar Oil Co.	323	19,140
Cosden Oil & Gas Co. and Marland Refining Co.	16	398
Gypsy Oil Co.	98	5,356
Healdton Oil & Gas Co.	27	1,538
McCaskey & Wentz	42	9,294
McMan Oil & Gas Co.	3	15
Pennok Oil Co.	27	4,422
Phillips Petroleum Co.	4	110
Prairie Oil & Gas Co.	12	502
Sinclair Oil & Gas Co.	1	15
Slick and Comar Oil Co.	31	4,559
Southwestern Petroleum Co.	16	645
White Eagle Oil & Ref. Co.	7	204
The Texas Co.	5	60
Total	689	53,759
Total last week	688	39,556
Difference	1	14,203

Daily average pipe line runs from the field were as follows: Kay County Gas Co., 16,783 bbls.; Ozark Pipe Line Co., 8,652 bbls.; Gulf Pipe Line Co., 4,495 bbls.; Champlin Refining Co., 11,858 bbls.; Bolene Refining Co., 638 bbls.; Globe Refining Co., 3,000 bbls.; Producers & Refiners Corp., 502 bbls.; Enid Oil & Pipe Line Co., 744 bbls.; Oklahoma Pipe Line Co., 155 bbls.; Empire Pipe Line Co., 867 bbls.; Golden Rule Refining Co., 500 bbls.; Prairie Pipe Line Co., 2,214 bbls.

The Globe Refining Co. was still running 1,714 bbls. daily from Moore tank farm. Champlin was running 635 bbls. a day to storage for Pennok Oil Co.

Burbank Production

Daily average production in the Burbank Field for the week ended August 12 was as follows:

Company—	Wells	Bbls.
Carter Oil Co.	187	7,175
Comar Oil Co.	7	321
Cosden Oil & Gas Co.	104	4,480
Devonian Oil Co.	16	230
Gardner Petroleum Co.	20	494
Gypsy Oil Co.	196	7,837
Kewanee Oil & Gas Co.	22	666
Laurel Oil & Gas Co.	16	270
Lorraine Petroleum Co.	15	338
Midland Oil Co.	37	3,346
Mid-Kansas Oil & Gas Co.	39	2,449
Peters & Oliphant	1	125
Phillips Petroleum Co.	70	8,133
Phillips Petroleum Co. and Delmar Oil Co.	16	2,510
Phillips Petroleum Co. and Skelly Oil Co.	172	6,366
Prairie Oil & Gas Co.	106	4,370
Producers & Refiners Corp.	29	540
Roxana Petroleum Corp.	57	1,036
Simons, Moore et al	29	333
Sinclair Oil & Gas Co.	145	4,325
Skelly Oil Co.	21	1,134
Tidal-Osage Oil Co.	43	961
Twin State Oil Co.	24	1,961
Total	1,372	59,947
Total last week	1,368	60,170
Difference	4	223
Kay County Extension—		
George S. Bole	3	972
Carter Oil Co.	11	1,398
Comar Oil Co.	19	1,235
Cosden Oil & Gas Co.	16	1,074
Gypsy Oil Co.	18	1,178
Laurel Oil & Gas Co.	2	518
Phillips Petroleum Co.	31	3,404
Mid-Kansas Oil & Gas Co.	10	1,090
Prairie Oil & Gas Co.	4	388
Pure Oil Co.	5	175
Roxana Petroleum Corp.	8	484
Dye, Tomlinson et al	8	703
Skelly Oil Co. and Phillips Petroleum Co.	20	703
Sinclair Oil & Gas Co.	5	703
The Texas Co.	15	1,120
Twin State Oil Co.	16	756
Total extension	192	17,083
Total last week	190	17,027
Difference	2	544
Total Burbank	1,564	77,030
Total last week	1,559	77,797
Difference	5	767

Following are the daily average pipe line runs from the Burbank Field for the week: Gulf Pipe Line Co., 10,826 bbls.; Cosden Pipe Line Co., 8,054 bbls.; Kay County Gas Co., 7,290 bbls.; Osage Pipe Line Co., 1,127 bbls.; Oklahoma Pipe Line Co., 17,036 bbls.; Prairie Pipe Line Co., 6,402 bbls.; Sinclair Pipe Line Co., 5,032 bbls.; Moore Refining Co., 1,885 bbls.; Standish Pipe Line Co., 10,684 bbls.; Empire Pipe Line Co., 1,224 bbls.; Mid-Kansas Oil & Gas Co., 3,032 bbls.; Magnolia Pipe Line Co., none; Twin State Oil Co., 1,937 bbls.; Ozark Pipe Line Co., 1,883 bbls.

$75,455,603 TO OSAGES ON OIL IN THE BURBANK

WASHINGTON, D. C., Aug. 16.—Up to June 30 Osage Indians have realized $75,455,603 from bonus and royalty on oil in the Burbank Field, it was stated at the Interior Department.

An aggregate of $53,123,000 has been paid as bonus and $22,322,603 as royalty.

Twenty-one quarter sections have been sold in this field for bonuses averaging more than a million dollars each.

Since oil was first found in the Burbank Field, 1,335 wells have been drilled of which only 12 were dry.

One lease for which a bonus of $1,000,000 was paid has produced 2,028,751 bbls. up to June 30. Another brought a bonus of $1,310,000 and has produced 2,443,614 bbls. of oil.

In the Osage Reservation there are now 9,075 producing wells with production of about 3,500,000 barrels a month and royalties of $1,350,000 per month.

GULF COAST

(Continued from Page 54)

the Mid-Ojulas district, the Cin-Tex Oil Co.'s No. 6 is credited with 125 bbls. initial at 1,718 feet. The Shasta Oil Co.'s No. 7 is a 100-bbl. producer.

The Texical Oil Co.'s No. 1 Garcia is drilling, as is the Alonza Oil Co.'s No. 6 Garcia. The A. D. J. Co.'s No. 2 Pratt, 26 miles northwest of Laredo, a wildcat, is drilling at 4,060 feet, the deepest test to date in that part of the State. The Boyd Oil Co.'s No. 1 Petty, near the Dimmitt County line, is drilling at 3,040 feet.

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swings from the center and can be used on either side of Jaws.

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is "proof-tested" to two-thirds of its catalog breaking strain. This assures safety to the operator.

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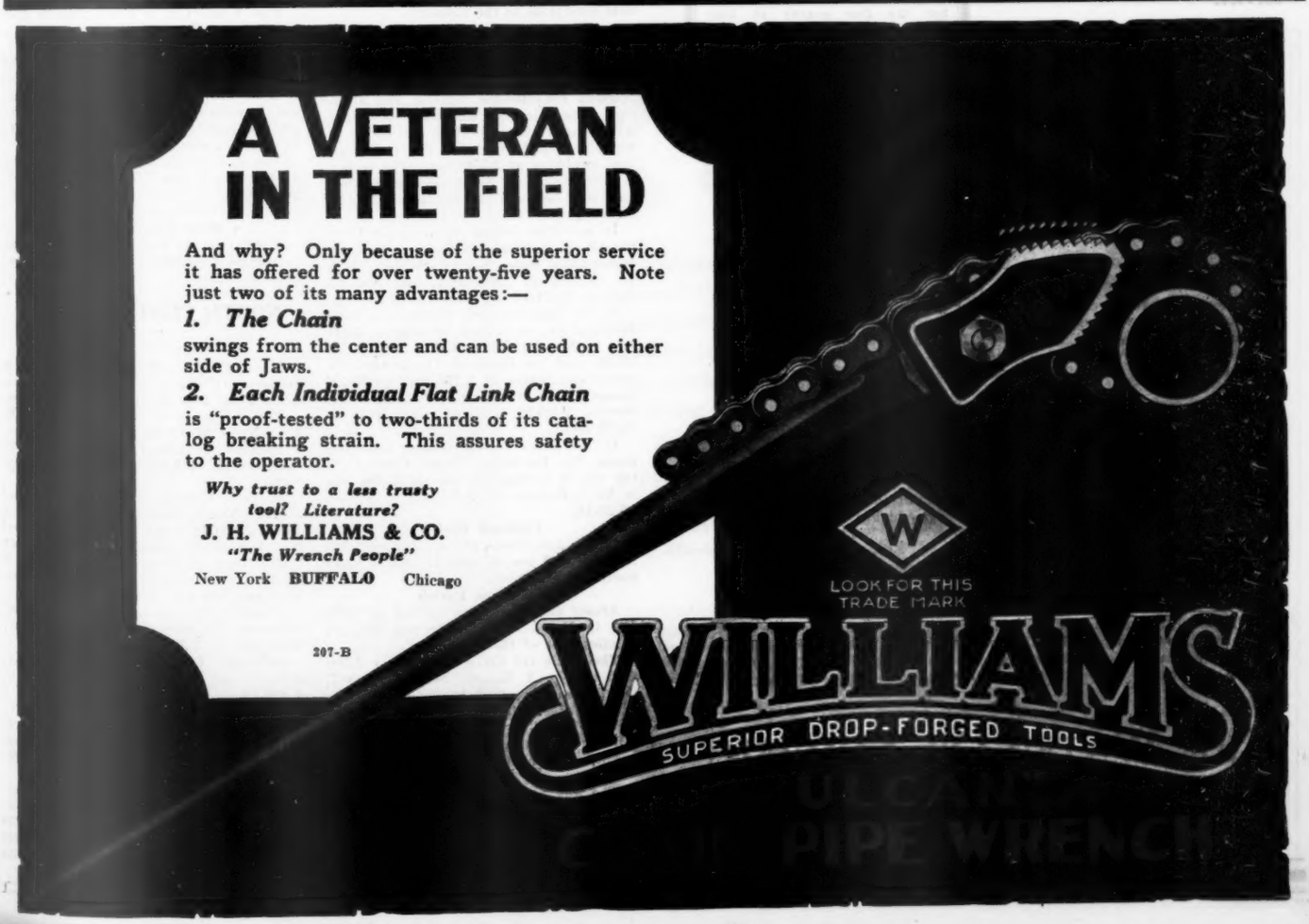
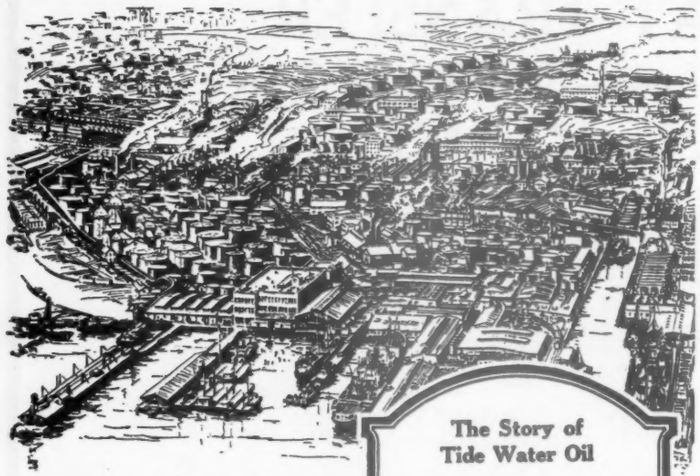


The Globe Refining Co. was still run- mitt County line, is drilling at



The Tide Water Refinery at Bayonne, N. J.

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Number Five of a Series

Through Tons and Tons of Fuller's Earth

IN these brief, step-by-step sketches of the high points in the refining of crude petroleum, we have taken you from the oil fields, along the pipe lines, into the refinery and through the crude stills. The next phase is a most important one—filtration.

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Intensive experimental and research work is always under way to improve our refining methods. As a result we are constantly raising our standards of quality even when our existing standards are, in many cases, far in advance of the rest of the industry. All refining operations are controlled by a single, highly trained technical organization.

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WHOLESALE DEPARTMENT

11 Broadway New York

N. LOUISIANA-ARKANSAS

(Continued from Page 56)

Whittiken and others plugged back 112 feet to cut off salt water and waiting cement to set at 2,363 feet in No. 4 Anderson, Section 23-15-17; Pure Oil Co. rigging up to deepen from 2,049 feet No. 7 Brister, Section 28-15-15; derrick up for No. 1 Johnson, Section 30-15-15; Simms Oil Co. has derrick up for No. 1 Berg Brothers, Section 30-15-15.

Columbia County, Stephens District

The Atlantic Oil Producing Co. is rigging up to drill No. 2 Weaver, Section 36-15-20 and in same section the Magnolia Petroleum Co. has set 6-inch casing at 2,122 feet in No. 2 Rinehart.

Phillips and others drilled to 50 feet in test on Davis lease, Section 15-18-20.

Virgol Heath, trustee, is drilling in lime at 2,015 feet in No. 1 Williams, Section 1-19-21.

Arkansas Wildcats

Calhoun County

The Arkansas Fuel Oil Co. is drilling at 2,740 feet in No. 2 Childress, Section 1-15-15.

Nevada County

Autry and others are rigging up to drill No. 3 Womack, Section 10-14-21.

Burnham and others tested dry at 1,150 feet in No. 1 Perry, Section 12-15-22, and the test will be abandoned.

Practically a shut down prevails in the Arkansas wildcat territory, some 35 tests in the various counties in southern Arkansas being temporarily abandoned.

North Louisiana

With the exception of a few wells in the Pine Island district in Caddo Parish, and customary development in the Monroe gas field, drilling throughout North Louisiana is confined almost entirely to wildcat tests, extending from the Arkansas State line down to the center of the State and from the Texas State line on the west, across the entire north half of Louisiana. Many tests are temporarily closed down, either for lack of water for drilling purposes, or waiting more favorable conditions in the industry.

Caddo Parish

Collins and others have a showing of oil in their test on the Levy Realty & Planting Co. lease, Section 3-19-24, attracting considerable interest and attention. The hole filled with fluid over night, with two or three hundred feet or oil on top and considerable salt water and are now swabbing at 2,550 feet. The well is 8 mile south of Shreveport and about half way between the Bethany and Elm Grove gas districts.

In the Pine Island district, the Dixie Oil Co. is drilling two deep tests on the Robertshaw lease, No. 14, Section 14-21-15, drilling at 2,815 feet, and No. 43, Section 13-21-15, at 3,185 feet.

In the Mooringsport district, the Gulf Refining Co. is drilling in lime at 3,210 feet in No. 216 Ferry Lake, Section 14-20-16, and the Reynolds Oil & Gas Co. tested salt water at 2,275 feet in No. 4 Jeems Bayou Hunting & Fishing Club, Section 9-20-16, and plugging back to 2,275 feet.

In the north end of Caddo, near Rodessa, the Louisiana Texas Community Oil Co. is drilling in lime at 2,990 feet in No. 1 Rodessa Oil & Land Co., Section 15-23-16.

Caldwell Parish

Culver and others are drilling at 2,525 feet in No. 1 fee, Section 21-14-4, 5 miles north of Columbia.

Claiborne Parish

Arnett and others are drilling at 1,550 feet in No. 1 Calhoun, Section 26-21-6, 5 miles east of Homer.

The Dixie Oil Co. is drilling at 2,590 feet in No. 1 Eastep, Section 20-20-7, 6 miles southwest of Homer.

The Forest Oil Co. is drilling at 2,050 feet in No. 1 Fields, Section 22-19-5, 15 miles southeast of Homer and 5 miles northeast of Arcadia.

De Soto Parish

The gas well completed by Fuller & Scott just across the State line, in Harrison County, Texas, has revived interest in development between the Bethany gas field and the old Logansport district where encouraging indications of oil were found a number of years ago. Three tests are now in progress in the vicinity of Logansport.

The Greyhound Syndicate is drilling at 1,500 feet in No. 1 Pollock, Section 36-11-14, 1 mile northwest of Logansport.

A. H. Tarver is drilling in shale at 1,225 feet in No. 1 Hewitt-Hicks, Section 10-11-14, 5 miles northwest of Logansport.

Ulrey and others are closed down for water at 2,925 feet in No. 1 Frost-Johnson, Section 3-11-15, 7 miles east of Logansport.

La Salle Parish

The Bur Ban Oil Co. is drilling at 1,750 feet in No. 2 Urania, Section 21-11-2e, 3 miles north of Urania.

The Stovall Drilling Co. tested salt water at 1,415 feet in No. 2 Louisiana Central Lumber Co., Section 27-10-2e, and is setting 4½-inch with packer at 2,000 feet for another test.

The Urania Petroleum Co. is drilling at 1,415 feet in No. 4 Urania, Section 20-10-2e, 2 miles south of Urania.

Morehouse Parish

Ladel and others are drilling at 2,155 feet in No. 1 Feazel, Section 22-20-5e.

The Natural Gas Producing Co. set 6-inch casing at 2,130 feet in No. 12 Crossett, Section 35-21-4e.

Ouachita Parish

The Amalgamated Oil Co. is drilling at 150 feet in No. 5 Perry, Section 20-20-5; Ladel and others set 8-inch casing at 915 feet in No. 26 fee, Section 16-19-5, drilling plug in 6-inch at 2,205 feet in No. 27 fee, Section 33-20-5, and drilling at 1,675 feet in No. 28 fee, Section 30-19-5.

Montgomery and others are drilling at 350 feet in No. 1 fee, Section 6-19-5.

The Palmer Corp. is drilling at 2,220 feet in No. 2 Lieber and derrick up for No. 3 in Section 4-19-5; Pelican Gas & Carbon Co. set 12½-inch casing at 100 feet in No. 1 Shell, Section 18-19-5, and the Southern Carbon Co. set 6-inch casing at 2,200 feet in No. 35 fee, Section 5-19-5 and drilling at 1,800 feet in No. 36 fee, Section 21-19-5.

The Texas Co. is rigging up to drill No. 2 Ladel, Section 11-19-4e.

Union Parish

Castello and others are drilling at 100 feet in No. 1 Nelson, Section 17-23-1w, 6 miles west of the Oakland production, and 7 miles farther west Frankel Brothers are drilling at 2,110 feet in No. 1 T. D. Brazile, Section 30-23-2w.

James and others set 10-inch casing at 150 feet in No. 1 Talton, Section 14-20-3e, near the east edge of the parish, adjoining the Monroe gas field.

West Carroll Parish

The Arkansas Fuel Oil Co. is drilling in gumbo at 2,290 feet in No. 1 Fiske, Section 8-21-10.

NORTH CENTRAL TEXAS

(Continued from Page 46)

Moore County—Drilling: Producers & Refiners Oil Corp.'s No. 1 Masterson, drilling by 10-inch casing at 1,940 feet.

Potter County—Drilling: Amarillo Oil Co.'s No. 1 Warrick, drilling at 400 feet.

Roberts County—Drilling: Big Bend Oil Co.'s No. 1 Ledrick, drilling at 1,200 feet.

Wheeler County—Drilling: Cosden and others' No. 1 George, drilling in salt rock at 2,670 feet; Tyrell and others' No. 1 Sheldon, plugging to abandon at 2,130 feet; Woodley and others' No. 1 Bowers, showing a little gas and moving back the boiler at 1,885 feet.

Shackelford County.—Completions: Magnolia Petroleum Co.'s No. 3 George, 265 bbls. at 3,530 feet.

Drilling: Cerf and others' No. 1 Poindexter, underreaming 10-inch casing at 1,890 feet; Kellogg and others' No. 1 Sedwick, drilling in lime at 3,250 feet; Landreth Producing Co.'s No. 3 Lynch, drilling at 1,450 feet; McMahon and others' No. 2 Lynch, drilling at 2,400 feet.

Mitchell County.—Completions: California Co.'s No. 3 Miller, 150 bbls. at 3,030 feet; No. 4 Miller, 60 bbls. at 3,030 feet; No. 8 Morrison, 140 bbls. at 3,030 feet; No. 9 Morrison, 35 bbls. at 3,030 feet.

Drilling: Harris and others' No. 1

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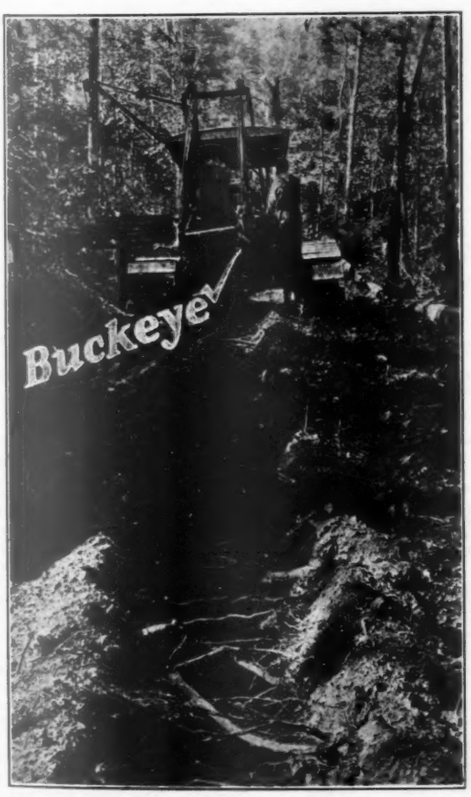

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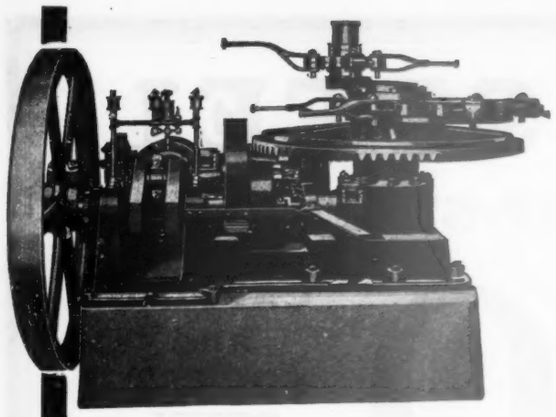

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Brown, showing oil and drilling at 370 feet; Humphrey and others' No. 1 Coleman, drilling at 400 feet; California Co.'s No. 10 Morrison, drilling in shale at 2,650 feet; No. 11 Morrison, drilling in lime at 2,870 feet; No. 6 Abrams, drilling in lime at 2,430 feet.

Palo Pinto County—Drilling: Guarantee Royalty Co.'s No. 1 Mosley, drilling in rock at 1,085 feet; Tolbert and others' No. 1 Slimp, drilling at 440 feet; Owens and others' No. 2 Wheeler, fishing at 3,670 feet; Craig and others' No. 1 Jones, drilling in brown shale at 1,215 feet.

Brown County—Completions: Simms Oil Co.'s No. 1 Gains, 5 bbls. at 1,310 feet.

Drilling: Anderson and others' No. 1 Wheeler, drilling in shale at 1,700 feet: Avery and others' No. 3 Cox, drilling in mud at 2,180 feet; Gillman and others' No. 5 Newton, spudding; Gump and others' No. 1 Moore, showing oil and gas and drilling at 1,245 feet; Mahlstedt & Mook's No. 1 Gafford, drilling at 1,235 feet; No. 2 Gains, spudding; Moore and others' No. 1 Chambers, showing oil and gas and drilling at 1,220 feet; No. 1 Teston, drilling at 770 feet; No. 1 Westerman, drilling at 305 feet; Poe & Wilson's No. 1 Baxter, drilling in brown shale at 730 feet.

Comanche County.—Drilling: Ghormley and others' No. 1 Moorman, drilling at 2,695 feet; Poe & Wilson's No. 1 Johnson, drilling in black rock at 2,910 feet.

Callahan County.—Drilling. Bryant and others' No. 1 Forbes, drilling at 2,700 feet; Dudley Oil Co.'s No. 1 Moore, drilling with hole full of water at 1,845 feet; Kellogg and others' No. 1 Snyder, drilling in shale at 980 feet; Prewitt and others' No. 1 Bailey, drilling at 1,000 feet; No. 1 Betcher, drilling at 1,250 feet; Poe & Wilson's No. 6 Albin, drilling in soft rock at 1,645 feet; Slick and others' No. 1 Allen, drilling at 1,675 feet; The Texas Co.'s No. 1 Isenhower, drilling at 520 feet; Texas-Pacific Coal & Oil Co.'s No. 1 Biggerstaff, drilling in blue shale at 1,580 feet.

Reagan County—Drilling: Dunning and others' No. 1 University, sidereaming 6-inch casing with hole full of water at 2,887 feet; Texon Land & Development Co.'s No. 1 University, showing estimated 300 bbls. a day production and shut down for storage at 3,024 feet; No. 2 University, shut down for storage at 2,895 feet; Wrightsman and others' No. 1 Ingham, spudding at 70 feet.

PRODUCTION REPORT

Week Ending August 14, 1924

Burkburnett	
Barkley & Meadows	1,300
Humble Oil & Ref. Co.	520
Gulf Production Co.	955
Magnolia Petroleum Co.	3,200
McMahon Oil Co.	415
Panhandle Oil & Ref. Co.	400
Prairie Oil & Gas Co.	15
Sinclair Oil & Gas Co.	80
The Texas Co.	600
Texhoma Oil & Ref. Co.	460
Miscellaneous	11,235
Total	19,180
Electra	
Empire Gas & Fuel Co.	1,285
Humble Oil & Ref. Co.	250
Griswold Oil Co.	275
Gulf Production Co.	1,050
Magnolia Petroleum Co.	4,390
McMahon Oil Co.	220
Panhandle Oil & Ref. Co.	105
The Texas Co.	4,360
Texhoma Oil & Ref. Co.	2,300
Miscellaneous	7,890
Total	22,125
Iowa Park, Etc.	
Griswold Oil Co.	45
Gulf Production Co.	40
Humble Oil & Ref. Co.	40
Panhandle Oil & Ref. Co.	220
Texhoma Oil & Ref. Co.	80
Miscellaneous	4,805
Archer County—	
Empire Gas & Fuel Co.	1,150
Griswold Oil Co.	960
Gulf Production Co.	315
Humble Oil & Ref. Co.	120
Magnolia Petroleum Co.	190
Panhandle Oil & Ref. Co.	310
The Texas Co.	700
Texhoma Oil & Ref. Co.	2,730
Miscellaneous	21,725
Petrolia—	
Gulf Production Co.	65
Magnolia Petroleum Co.	30
The Texas Co.	80
Miscellaneous	310
Total	33,915
Stephens County—	
Empire Gas & Fuel Co.	125
Gulf Production Co.	1,680
Humble Oil & Ref. Co.	1,210
Magnolia Petroleum Co.	1,280
Mid-Kansas Oil & Gas Co.	1,825
Prairie Oil & Gas Co.	745
Sinclair Oil & Gas Co.	160
The Sun Co.	510
The Texas Co.	2,235
Texas Pacific Coal & Oil Co.	1,340
Miscellaneous	9,545
Total	20,625
Eastland County	
Gulf Production Co.	425
Humble Oil & Ref. Co.	140
Magnolia Petroleum Co.	530
Panhandle Oil & Ref. Co.	390
Prairie Oil & Gas Co.	700
Sinclair Oil & Gas Co.	520
The Texas Co.	390
Texas Pacific Coal & Oil Co.	860
Miscellaneous	3,065
Total	6,970
Other Fields	
Strawn—	
Texas Pacific Coal & Oil Co.	235
Miscellaneous	655
Moran—	
Empire Gas & Fuel Co.	185
Humble Oil & Ref. Co.	490
The Texas Co.	160
Texhoma Oil & Ref. Co.	175
Miscellaneous	2,635
Coleman County—	
Miscellaneous	135
Brown County—	
Miscellaneous	600
Comanche-Eastland—	
Humble Oil & Ref. Co.	205
Magnolia Petroleum Co.	1,100
Prairie Oil & Gas Co.	195
Sinclair Oil & Gas Co.	60
The Texas Co.	220
Texas Pacific Coal & Oil Co.	140
Miscellaneous	4,620
Young County—	
Gulf Production Co.	95
Sinclair Oil & Gas Co.	480
Panhandle Oil & Ref. Co.	275
The Texas Co.	65
Miscellaneous	3,235
Mitchell County	1,600
Reagan County	6,300
Jack County	20
Scurry County	55
Carson County	1,120
Hutchinson County	25
Total	24,930
Total this week	137,775
Total last week	133,305
Gain	4,470

CANADIAN FIELDS

(Continued from Page 46)

Oil & Refining Co.'s No. 1 (Rogers-Imperial) test on Section 29-1-11w4 is drilling in a very hard rock and making about 3 feet a day. The test is close to 2,000 feet. It is planned to drill until an oil sand is reached, or to the limestone, which will prove that oil does not exist on this portion of the structure. Imperial Oil, Ltd., is rigging up its test at Dead Horse Coulee, on the Talpey leases, about 3 miles north of the Rogers-Imperial gasser. The heavy rotary outfit from the Fabyan Field will be used for this test. On the McIntyre ranch south of Magrath the D. A. McDonald Syndicate test is shut down waiting for casing. The Canadian Oil & Refining Co.'s plant at Lethbridge is running to capacity, and the company is planning the erection of another still, construction of additional tankage, and the improvement of the existing facilities for handling crude oil.

In the Montana fields, Red Deer-Sunburst No. 1 is reported good for 250 bbls. a day, and No. 2 has been located about 440 feet west of No. 1.

Ontario Fields

In the Ontario fields, B. Jasperson, drilling near Kingsville, in Essex County, has finished No. 5 gasser with a small production, between 50,000 and 100,000 feet a day. The Avonex syndicate is drilling a shallow tests for oil on the west front of Pelee Island. The Southern Ontario Gas Co.'s deep test near Colchester, in Essex County, is reported drilling around 1,900 feet.

In Kent County the E. P. Rowe test on the Featherston farm in Zone Township, north of Thamesville, is reported fishing around 2,100 feet. Eugene Coste & Co.'s No. 7 is reported drilling below 1,200 feet on the Matt Boyle farm, Dover East Township. Union Natural Gas Co.'s No. 251 deep test, John Shanks farm, Romney Township, is drilling near the top of the Trenton limestone.

In Elgin County the Dominion Natural Gas Co. is reported drilling around 1,000 feet on a test in Malahide Township. Another test east of Port Burwell has a fishing job below 500 feet.

Drilling for shallow oil production in Elgin County, 2 miles from old Iona Station, is being carried on by the St. Thomas Oil & Gas Co. of St. Thomas, Ont., and the Peace River Development Co. of Toronto. The latter company is operating on leases of the St. Thomas company. The Peace River Development Co. is reported to have finished three shallow

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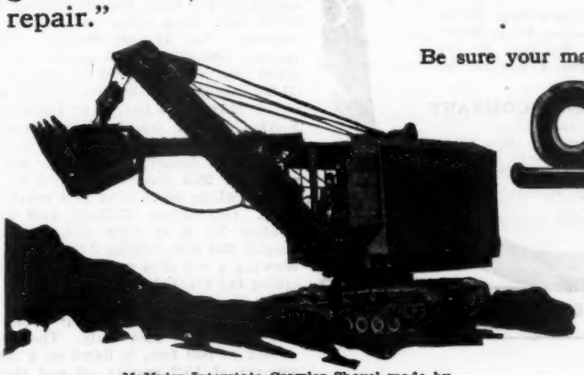

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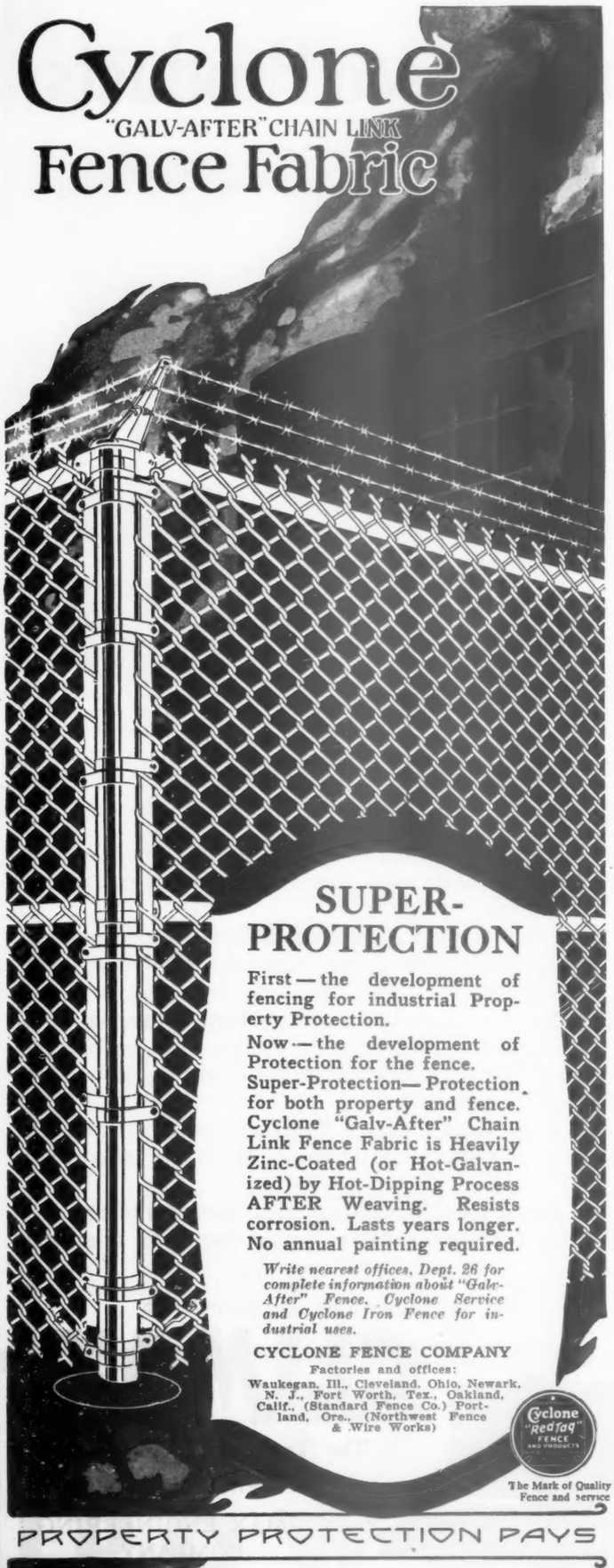
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wells, around 365 feet, which are small pumpers; and the St. Thomas Oil & Gas Co. has drilled one well at a little distance from the other with a fairly good production. It is stated that a carload of oil has been shipped since the development started.

In Norfolk County, the Southern Ontario Gas Co. is reported drilling at about 600 feet on a wildcat test for gas, located southeast of Maybee's Corners and southwest of Courtland. This test will be carried to the gas sand at approximately 1,500 feet. A water well on the Frank Broadway farm near Unionville struck a small gas production at 105 feet, but it is not thought to be of much commercial significance.

In Lambton County the pumping rig and building on the Ed Kelly oil farm on Eureka Street, in the Petrolia Field, was recently destroyed by fire, the loss being about $2,000 with $600 insurance. Some 15 producing wells are tied up; but a new rig will be built.

CALIFORNIA FIELDS

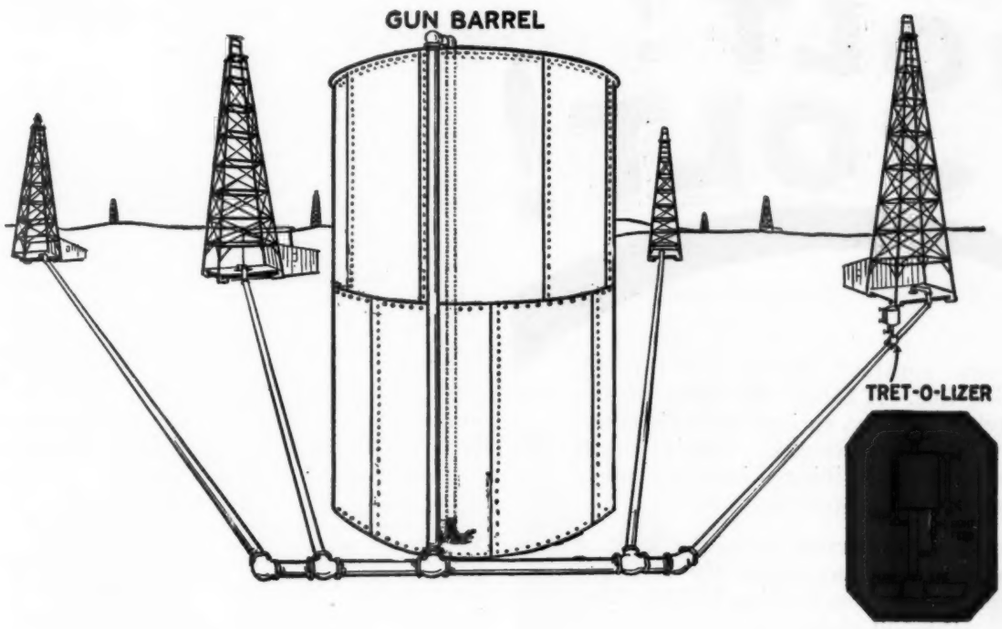
(Continued from Page 50)

ished, the largest of which was the Calavada Oil Co.'s well No. 1 on Section 34-32-24. It was finished at 3,655 feet and registered 1,192 bbls. of 25.2 gravity oil daily. The Big Ten, on Section 36-32-23, and the Formax Oil Co., on the same section, finished 100-bbl. wells. The oil from the former's No. 7, which was finished at 1,300 feet, tests 14.2 degrees, while the output from the latter's No. 16, drilled to 1,198 feet, tests 14.1 degrees. The Surprise Oil Co., also operating on Section 36-32-23, completed No. 4 at 1,274 feet good for 96 bbls. of 14.3 gravity oil. The General Petroleum completed the largest number of new producers by bringing in No. 400 on Section 35-12-24, No. 181 on Section 34-12-24 and No. 10 on Section 28-12-24. No. 400, the largest of the three, pumped 230 bbls. of 14.1 gravity oil from 3,102 feet. No. 181 was good for 74 bbls. from 610 feet, while No. 10 registered 65 bbls. from 795 feet, the oil in each case testing 14.5 degrees. The Associated Oil Co. finished a 20-bbl. pumper on Section 17-11-23 when well No. 33 was put on the beam after having been drilled to 1,078 feet. The Calitroleum Oil Co. secured a small pumper on Section 4-11-23, although the quality of the oil was fairly good. The company's No. 3, brought in from 3,614 feet, was good for 25 bbls. a day of clean 25.4 gravity oil.

In the Midway Field, where development work has been on the increase, there were several fairly good producers finished, the largest being the North American's well No. 8, on Section 30-31-24, a Government lease. Upon being completed at 3,545 feet it tanked 1,500 bbls. of 27.4 gravity oil during the first full day's test. The Pacific Oil Co. finished five new producers with an aggregate initial daily output of 1,350 bbls. on Section 33-31-24. The company brought in No. 22 from 4,335 feet and increased its production 635 bbls. a day. A 400-bbl. producer was finished on Section 5-22-24, when No. 92 was turned loose from 2,548 feet. No. 24, on Section 31-31-24, is credited with an initial output of 125 bbls., the oil, coming from 3,218 feet, being clean and testing 25.2 degrees. No. 41, on Section 7-32-24, pumped 100 bbls. of 26.1 gravity oil from 2,850 feet, while No. 66, on Section 25-31-23, was good for 90 bbls. of 27.1 gravity oil from 3,266 feet. The Honlulu, on Section 4-32-24, completed two pumpers, No. 34 at 3,001 feet and No. 81 at 3,960 feet. The former, a 360-bbl. well, is producing 26.5 gravity oil, while the latter is making 90 bbls. of 27.4 gravity oil daily. On Section 35-32-23, Bell Evans finished No. 6 at 2,288 feet, the initial output, 290 bbls., testing 14.8 degrees and showing a cut of 6 per cent. The Associated Oil Co. finished two pumpers, No. 61 on Section 2-32-22 and No. 61 on Section 22-31-23, although their total output was only 50 bbls. daily. The former, drilled to 960 feet, is listed as a 20-bbl. pumper of 15.2 gravity oil and the latter, finished at 3,350 feet, is credited with a maximum output of 30 bbls. daily, the oil testing 28.6 degrees and showing a cut of 1 per cent. The Midland Oilfields (California Petroleum) completed a deep producer, No. 4, on Section 34-31-24, but the output was very satisfactory. The well, which was finished at 4,308 feet, came in flowing 535 bbls. of clean 27.2 gravity oil daily. The Dominion Oil Co. only secured a 75-bbl. pumper when No. 12 was put on the beam, but it was, perhaps, one of the best of the smaller wells finished in the field, since it only required 790 feet of hole. The drilling cost on this pumper, located on Section 13-31-22, was therefore low and the well will pay for itself within a short time. These producers are long lived and it should prove a very good investment for the future. The Brookshire Oil Co. increased its daily production 145 bbls. by completing No. 12 on Section 34-31-22 from the 2,600-foot level.

In the Elk Hills district, there were seven new wells put on production, only two of which, however, made over 1,000 bbls. daily. The Pacific Oil Co. finished No. 113 on Section 27-30-24 and No. 10 on Section 25-30-24. The former, drilled to 3,400 feet, was good for 1,194 bbls. of 17.8 gravity oil, while the latter, finished at 3,225 feet, came in flowing 1,225 bbls. The Pacific is only running seven strings of tools in this field, all on Section 35-30-24, but a new rig being finished on Section 27-30-24 should be rigged up and active drilling started within a few days. The Pan-American, the largest producer of crude in the field, did not increase its list of producers, although the company's six drilling wells are approaching completion depths. The Associated Oil Co., on Section 26-30-24, completed two new wells, Nos. 21 and 31, and spudded in another. No. 21 was good for 150 bbls. of 16.8 gravity oil from 3,225 feet, while No. 31 made 160 bbls. of 16.6 gravity oil from 3,240 feet. The Belridge Oil Co., the latest operator in this field to be faced with a Government recovery suit, finished No. 15 on Section 34-30-24. It was unusually small and only made 75 bbls. of 25.1 gravity oil from 2,865 feet. The Union Oil Co. added its first producer in several months by completing No. 6 on Section 26-30-24. It was drilled to 3,405 feet and made 294 bbls. of 18.1 gravity oil on the beam. The Standard Oil Co. secured a 210-bbl. pumper on Section 31-30-25 by finishing No. 18 at 3,301 feet. The General Petroleum has not yet spudded in its Commanche Point wildcat on Section 31-21-18, although it was believed the company would get under way during the week.

The Sentinent Oil Co.'s test near Delano is still standing idle and it is not known just when drilling will be resumed. There was no very great amount of progress made in the Devils Den area, the Marathon Oil Co. showing 4,175 feet of hole and the Browngold Oil Co. 3,435 feet. The Marland Oil Co. has landed a string of 11-inch in its Lost Hills well at 2,945 feet but has not yet drilled out the cement. The Standard Oil Co. has hauled in material for its test but has not yet started constructing the derrick. The holdings of both these companies, acquired the past six months, should be thoroughly tested within six or eight months. The Union Oil Co. is putting the finishing touches on its rig at Rio Bravo on Section 4-29-25, where the company has 3,500 acres of land under lease, but active work has not been started. The Pan-American's No. 1 Parkford, on Section 13-29-39, on the Kern River Bluffs near Bakersfield, is being temporarily held up with a fishing job at 3,200 feet. The St. Helena spudded in No. 1 on Section 14-29-28 and is drilling at 200 feet. The Central Oil Syndicate's No. 1, also in this vicinity, on Section 36-28-28, shows 1,900 feet of hole. The Marland's Kern River wildcat, on Section 11-28-27, is drilling in a hard sandy shale at 2,010 feet. The Main Oil Co.'s wildcat at Wasco is circulating to free the 6¼-inch which became frozen. The management claims a good showing at 3,710 feet but, since the company is actively selling stock, the report is discounted. The Keystone Petroleum Co. has secured approximately 1,280 acres about 10 miles northwest of the Main's



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test, and is contemplating early development. The rig of the Fresno Madera Oil Co. at Clovis recently burned down after 3,650 feet of hole had been made but no move toward reconstructing it has been made. The Fresno United Oil Co., on Section 23-15-18, is testing out at 4,211 feet after its second cement job. The General Petroleum Co. made a test of its Kettlemen Hills wildcat at 4,741 feet, but no production was secured and drilling has been resumed. On Section 12-23-18 the Associated Oil Co. spudded in its first test and shows 400 feet of hole, while the Bolsa Chica Oil Co., Section 30-23-19, is drilling ahead at 329 feet. The Marland Oil Co. will soon begin work on its test on Section 12-21-17 but for the past week or two the company has been working on a water well, the output of which will be used in the boilers. Hugh McPhail's well No. 2 on 13-24-18 is drilling ahead at 1,470 feet.

Field Operations

Oil field operations reported to the State Oil and Gas Supervisor show 22 new wells started, compared with 24 during the previous week, bringing the total for the current year to date to 949, compared with 909 at the same time last year. Of the 22 notices to drill filed this week, five were for wells in the Torrance Field, three in the Huntington Beach Field, one in the Dominguez Field, one in the Rosecrans Field, one each at Ventura and Summerland, eight in the fields of Kern County, one in San Luis Obispo County and one in Sacramento County. Tests of water shut off totaled 31, compared with 46 during the previous week. Deepening or redrilling jobs totaled 11, while the five abandonments listed brought the total for the current year to date to 301. Permits were issued for the following wells in proven areas:

Torrance

Location, Company, Well—
C. C. M. O. Co.—
16-4-14 Del Amo 22.
9-4-14 Del Amo 100.
Petroleum Securities Co.—
19-4-13 Kleinmeyer 1-B.
Standard Oil Co.—
16-4-14 Potter Comm. 1.

Huntington Beach

Pan-American Pet. Co.—
11-6-11 Johnson 2-A.
2-6-11 Southern Calif. Drilling Co. 1.
The Petroleum Co.—
2-6-11 Wilson 3.

Rosecrans

Union Oil Co.—
19-3-13 Gordon 1.

Dominguez

Shell Co.—
33-3-13 Reyes 14.

Midway-Sunset

6-32-24 Honolulu Consolidated Oil Co. 57.
6-32-24 Honlulu Consolidated Oil Co. 67.
Standard Oil Co.—
36-12-24 M. J. M. & M. 55.
36-32-23 Surprise Oil Co. 5.

Kern River

14-29-28 Kern River Oil Fields Co., Ltd., 1.
2-29-28 L. M. Howland 9.

REFINERS ARE FIRM AS DECLINE HALTS

(Continued from Page 86)

tracts at 70 cents. If they had any for sale the views might be different and in the meantime it might serve their purpose if a buyer called to tell him they could not take any orders for a few weeks being sold ahead but their idea of price was 70 cents. The demand is made up of a lot of small orders. There is hardly a good, big contract in sight. One of the steel specialty companies here placed an order for 30 cars to be delivered at the rate of one car every two days. Its capacity would be around two cars a day. The demand seems to be gradually increasing and the stocks are not growing any larger resulting in a firm market.

Gas Oil Hand to Mouth

Gas oil is in much the same position as fuel oil. The nearby immediate demand is of the hand to mouth order but there is enough business to keep stocks at manageable levels so there is no pressure to sell and at times the buyer has to hunt around a little to get supplies at the date he wants them. A report is current here of a large sale said to have been made by a Standard company in the East for 1,000,000 bbls. of gas oil to be delivered during October and November. This should help the market, if confirmed.

Road oil is easy and there is a possibility the refiners have not sold up as clean as they thought. The weather has been against the work on the roads and there has been no dust to speak of so that the municipalities are taking their minimum requirements and have an many excuses as a station manager when his gallonage falls off. This is the season of largest road work and as it has rained nearly every day so far there is bound to be much delay.

Lubricants Dragging

Lubricating oils are dragging badly. The price situation is very unsettled and the demand disappointing. The export trade has not been as good as hoped and export orders havs been held up by cables. The local demand is about what it has been as there is very little change in the industrial situation or the use of autos.

Exports are expected here to show a decided improvement now that the Dawes plan has been accepted.

Tank Wagon Situation

There is no real change in the tank wagon situation and much waiting for further reductions in price lists. It is generally admitted there will be no reduction until there is a cut in crude.

There is some cutting by independents but less than before the last tank wagon decline over the territory. There is talk of a 14-cent tank wagon market here but this is to come later in the season and there are many who believe the present list will be held by the Standard until after the end of the touring season, if there is any touring season this year. The present local tank wagon price is 16 cents but there is a so-called quantity price of 14¼ cents and the charge is made that the smaller oil companies are not careful regarding the quantity they delivered at the 14¼-cent price. Some oil men state that if a buyer will order 100 gallons he can have it delivered on the installment plan and still get the 14¼-cent rate. Anything seems possible and this is probable.

CALIFORNIA RECEIPTS AND PETROLEUM IMPORTS

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the week ended August 9 totaled 1,038,000 bbls., a daily average of 148,286 bbls., against 603,000 bbls., a daily average of 86,143 bbls. for the week ended August 2.

At Atlantic Coast Ports—	
Baltimore	176,000
New York	847,000
Philadelphia	65,000
Total	1,088,000
Daily average	164,000
At Gulf Coast Ports—	
New Orleans and Baton Rouge	50,000
Daily average	4,287
Total Atlantic and Gulf Coast ports	1,038,000
Daily average	148,286

According to figures collected by the American Petroleum Institute imports of crude and refined oils at the principal ports for the week ended August 9 totaled 1,277,000 bbls., a daily average of 182,429 bbls., compared with 1,715,000 bbls., a daily average of 245,000 bbls. for the week ended August 2.

At Atlantic Coast Ports—	
Boston	128,000
New York	116,000
Philadelphia	222,000
Others	121,000
Total	587,000
Daily average	83,000
At Gulf Coast Ports—	
Galveston district	270,000
New Orleans and Baton Rouge	245,000
Port Arthur and Sabine district	181,000
Total	696,000
Daily average	99,429
At All U. S. Ports—	
Total	1,277,000
Daily average	182,429

OIL RIVALRY IN PERU

The report that the Royal Dutch Shell group had acquired an option of 800,000 acres of Peruvian petroleum lands and has applied for exploitation for 1,000,000 additional acres which have recently been put in reserve by the Peruvian Government, is looked upon as meaning that Peru is to become the center of one of the hardest fights between American and English oil interests in the world struggle for oil, says the New York Commercial.

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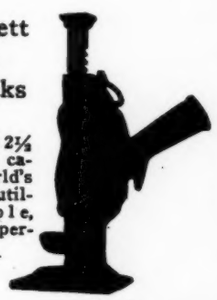

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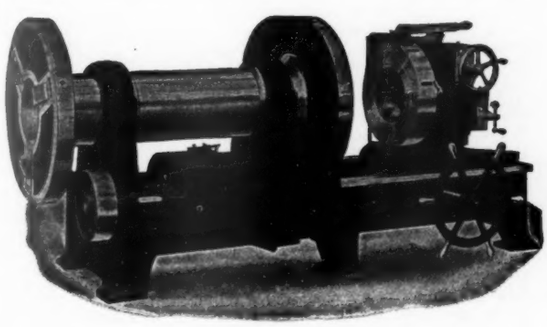

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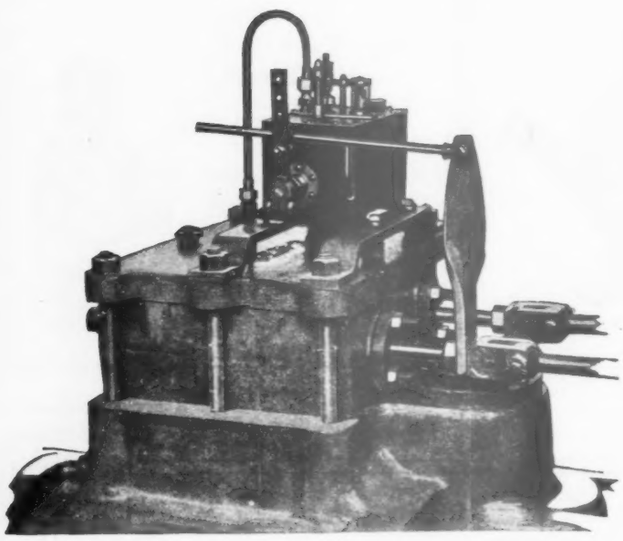

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GULF PORT SHIPMENTS DECREASED DURING THE MONTH OF JULY

HOUSTON, Tex., Aug. 16. — Shipments of refinery products and crude from the Gulf ports total 14,282,503 bbls. during the month of July. These were made up of 6,847,920 bbls. of refinery products and 7,434,583 bbls. of crude. Compared with the June figures refined decreased 875,690 bbls. and crude fell off 500,411 bbls.

The crude shipments from the Gulf ports afford an interesting study and show how the cheaper crudes are supplanting the lighter gravity crudes in the markets at Atlantic seaboard refineries. For illustration, the Standard Oil Co. of Louisiana loaded out the enormous total of 2,290,137 bbls. of crude, consigned Atlantic coastwise, a very large proportion of which was the Smackover (Ark.) product. In addition the Crusader Oil Co., reported to be affiliated with the Mex Pet. Co., is shipping a daily average of 2,500 tank cars from that field to storage on the Mississippi River, above New Orleans, which does not appear in the summary of water shipments. The Luling crude has become an important market factor in competition with the other Texas and Louisiana fields. Approximately 737,369 bbls. of that product was loaded on tankers at the Pasadena wharf of the United Central Oil Corp., on the Houston Ship Channel, being moved there in tank cars. Mirando crude from the Laredo districts appears for the first time, some 161,600 bbls. being moved from Aransas Pass in tankers and barges to the Magnolia Co.'s plant at Beaumont and the Sun Co.'s refinery at Marcus Hook, Philadelphia.

The Humble Oil & Refining Co. shipped a total of 1,498,144 bbls. of crude during July from its Texas City, Baytown and Neches terminals and the docks of the Sinclair Co. on the Houston Ship Channel. Compared with June this represents a decrease of 775,558 bbls., another indication of the effect of the heavy gravity, cheaper crudes upon the demand for light gravity North Central and East Central Texas crudes.

The increasing amounts of crude being handled through the Gulf ports is also indicative of the extent to which tanker service is supplanting the pipe lines in transporting oil from Texas and Louisiana to Atlantic seaboard refinery centers.

The Port Arthur-Beaumont district sent out 7,480,743 bbls. of the gross movement during the month of July. The Texas City and Houston Ship Channel plants loaded out 2,649,766 bbls. of refined and crude and the South Louisiana ports 3,414,625 bbls. of both kinds.

Exports

The export consignments of refined and crude during July total 1,253,663 bbls., all of which was refinery products. This is a decrease of 740,652 bbls. from the total for June. No crude was shipped to foreign ports during the month, but during June a total of 236,764 bbls. went abroad.

The following table shows the shipments by each company:

FROM PORT ARTHUR
By The Texas Co.
Refined

Destination—	Bbls.
Coastwise	1,359,676
Export	589,944
Total	1,949,620

Crude

Coastwise	396,441

By Gulf Refining Co.
Refined

Coastwise	1,879,220
Export	63,370
Total	1,942,590

FROM BEAUMONT
By Magnolia Petroleum Co.
Refined

Coastwise	*1,063,847

*Includes 73,584 bbls. manufactured fuel oil.

Crude

Coastwise	390,179

FROM SMITH'S BLUFF
By Pure Oil Co.
Refined

Coastwise	251,083

Crude

Coastwise	529,501

FROM NECHES TERMINAL
By Humble Oil & Ref. Co.
Crude (Orange)

Coastwise	111,678

FROM PORT ARTHUR
By Atlantic Oil Prod. Co. (Atlantic Ref. Co.)
Crude

Coastwise	316,724

FROM SABINE
By Sun Co.
Crude

Coastwise	70,400

FROM TEXAS CITY
By Humble Oil & Ref. Co.
Crude

Coastwise	1,061,756

By Swiftsure Pet. Co.
Crude and Fuel Oil

Coastwise	274,830

FROM BAYTOWN
By Humble Oil & Ref. Co.
Refined

Coastwise	299,535

Crude

Coastwise	25,175

FROM SINCO (Houston)
By Humble Oil & Ref. Co.
Crude

Coastwise	109,955

FROM HOUSTON
By Galena-Signal Oil Co. of Texas
Refined

Coastwise	11,561
Export	96,294
Total	107,855

(Docks of United Central Oil Corp.)
Crude

Coastwise	737,369

†Includes 507,786 bbls. consigned to Atlantic Ref. Co., Philadelphia.; 150,540 bbls. consigned to Beacon Oil Co., Boston; 79,150 bbls. consigned to Sinclair Consolidated Oil Corp. Mostly Luling crude.

FROM BATON ROUGE (La.)
By Standard Oil of Louisiana
Refined

Coastwise	422,577
Export	701,911
Total	1,124,488

Crude

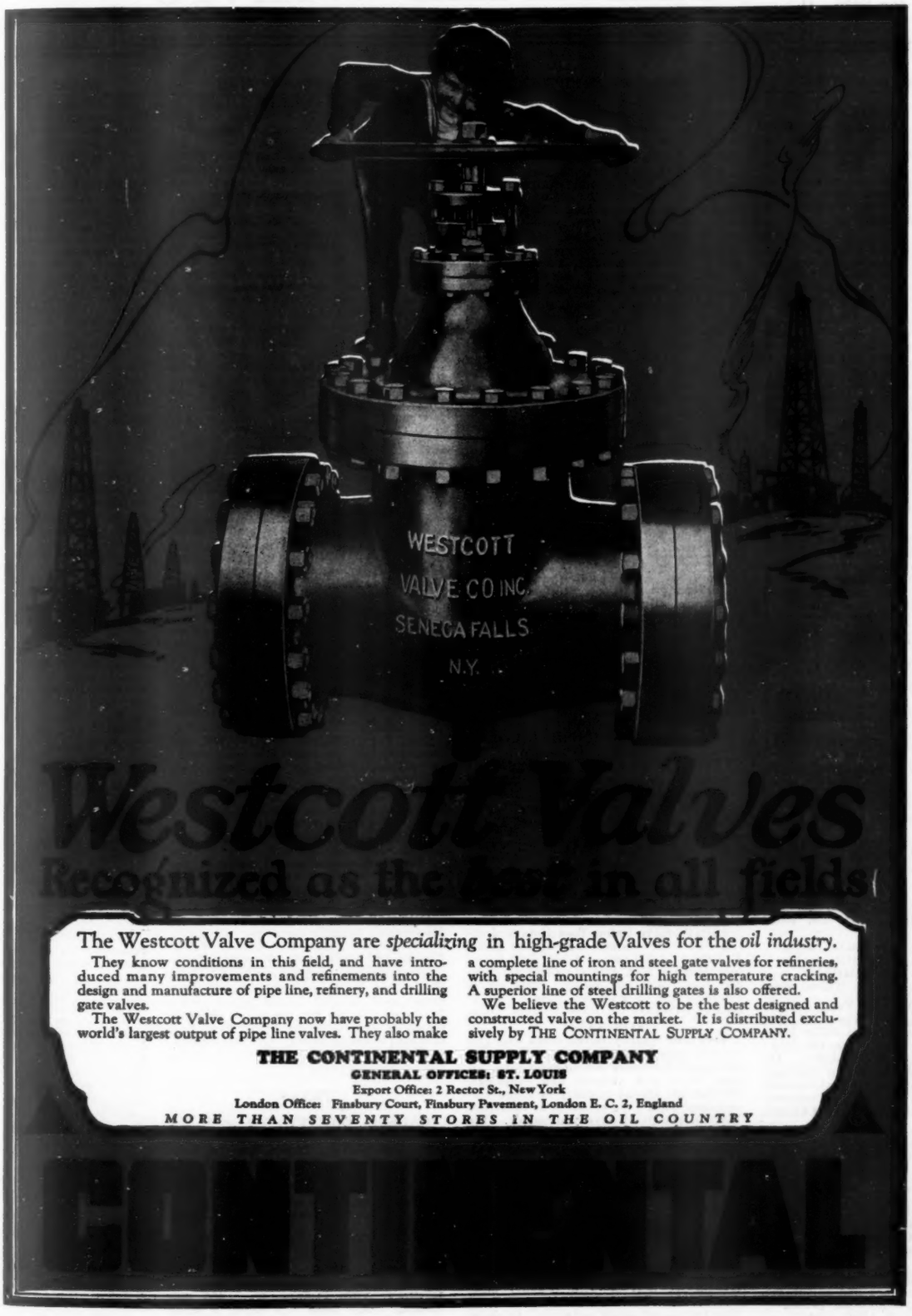
Coastwise	1,744,000

FROM NEW ORLEANS (Storage)
By Standard Oil of Louisiana
Crude

Coastwise	546,137

SUMMARY
Water Shipments of Refined and Crude From Gulf Ports During July, 1926

Company and Port—	Refined	Crude	Total
The Texas Co., Port Arthur	1,649,828	396,441	2,046,269
Gulf Refining Co., Port Arthur	1,942,594	.....	1,942,594
Magnolia Petroleum Co., Beaumont	1,053,057	390,179	1,443,236
Atlantic O. P., Port Arthur	.....	839,654	839,654
Pure Oil Co., Smith's Bluff	251,083	529,501	780,584
Humble O. & R. Co., Neches Terminal	.....	111,678	111,678
The Sun Co., Sabine	.....	316,724	316,724
The Sun Co., Aransas Pass	.....	70,400	70,400
Magnolia Petroleum Co., Aransas Pass	.....	91,200	91,200
Humble O. & R., Texas City	.....	1,061,756	1,061,756
Swiftsure Petroleum Co., Texas City	.....	274,830	274,830
Humble O. & R. Co., Baytown	716,915	299,535	1,016,450
Humble O. & R. Co., Sinco (Houston)	.....	25,175	25,175
Galena Signal, Houston	109,955	.....	109,955
United Central, Houston	.....	737,369	737,369
Standard of Louisiana, Baton Rouge	1,124,488	1,744,000	2,868,488
Standard of Louisiana, New Orleans	.....	546,137	546,137
Total July	6,847,920	7,434,583	14,282,503
Total June	7,723,610	7,934,994	15,658,604
Difference	875,690	500,411	1,376,101
Exports			
The Texas Co., Port Arthur	389,852	.....	389,852
Gulf Refining Co., Port Arthur	63,370	.....	63,370
Galena Signal, Houston	98,590	.....	98,590
Standard of Louisiana, Baton Rouge	701,851	.....	701,851
Total July	1,253,663	.....	1,253,663
Total June	1,757,551	236,764	1,994,315
Difference	503,888	236,764	740,652



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CONTINENTAL

25 CENTS per line first insertion; 15c per line each additional insertion. Cash in advance.

CLASSIFIED WANTS

MAIL your advertisement now. It will be published next week. Cash with order.

FOR SALE—EQUIPMENT

FOR SALE CHEAP

New Model G Franklin Oil Field Tractor in good condition, especially designed for pulling casing, tubing and rods. In addition to its adaptability to well pulling, it may be used as a tractor for hauling and general lease service. Address Box A-360, care The Oil and Gas Journal, Tulsa, Okla.

FOR SALE—Complete Gasoline Plant, 2 70-H. P. Bessemer gas engines, 1 12x6x12 Ingersol Rand Compressor, 1 17x12 Ingersol Rand Duplex Pump, high and low and storage tanks, electric light plant. R. W. Russell, St. Marys, W. Va.

FOR SALE—Eight 7-200-gallon tank cars, standard gauge, also five 5,000-gallon tank cars, for trolley car track; sixteen 1-ton Koppel coal charging cars for boiler rooms. Immense stocks of Pipe, Valves and Fittings in all sizes. Wire, phone or write. Tate, Fisher & Rice Co., 258 Washington St., Boston, Mass. Telephone Main 8365.

FOR SALE—One No. 23 Star Drilling Machine fully equipped with necessary tools. I am offering this machine at a special price for immediate sale. J. H. Brocksmith, 1856 Menard Street, St. Louis, Missouri.

GENERAL GEAR & MACHINE WORKS
"If It's Done in Metal, We Do It"
Gear cutting, blacksmithing, machining, welding, die making and metal stamping.
115 South Detroit, Tulsa, Okla.

TANK BOLTS

SAME DAY SHIPMENT

5/16x3/4-inch, 3/8x3/4-inch, 3/8x1-inch
3/8x1 1/4-inch, 1/2x1-inch.
Write or Wire for Quotations

STEEL MFG. & WAREHOUSE CO.
1447 Genesee St. Kansas City, Mo.

FOR IMMEDIATE SHIPMENT—Second hand line pipe and casing in A-1 condition:
10 miles of 3-inch Standard line pipe.
5 miles of 4-inch Standard line pipe.
5 miles of 6-inch Standard line pipe.
70,000 feet of 6 5/8-inch 20- and 24-lb. casing.
60,000 feet of 8 1/4-inch 28-lb. casing.
20,000 feet of 10-inch 35- and 40-lb. casing.
5,000 feet of 12 1/2-inch 50-lb. casing.
2,000 feet of 15 1/2-inch 70-lb. casing.
JOSEPH DAVIS COMPANY
613 Kennedy Bldg. Tulsa, Okla.

FOR SALE—80-H. P. Venn Severin Stationary Oil Engine; type I X, 300 R.P.M.; has two cylinders; roller bearing piston pins; piston 18 inches long; in an exceptionally good condition. Inspection at our warehouse in Chicago. Write or call for further information and data. The E. L. Essley Machinery Co., 551 W. Washington Blvd., Chicago, Ill.

FOR SALE—NEW
Four 12,000-gallon riveted tanks; 1/8-steel, 10'x20' 7". Price $525 each, f.o.b. Subject prior sale. A. V. Konsberg, 40 N. Dearborn St., Chicago, Ill.

FOR SALE.—Six 14-inch vacuum or gas pumps with stirrups to connect to beam. One Duplex steam pump for mine or boiler use. Address Pump, Box 776, Butler, Penn.

PIPE COUPLINGS, wrought iron; 1/8-inch to 16-inch; black and galvanized. Surplus stock. Extremely low prices.
H. C. ATKINS MFG. CO.
745 S. Third St. St. Louis, Mo.

GUARANTEED TANK TABLES
Tracings $2.50 to $5.00 according to size of tank. White cloth prints 75c to $1.25 each. Blue prints 25c to 75c each. Send strapping report and instructions to H. F. Heydrick, 208 South 12th Street, Muskogee, Okla.

FOR SALE—EQUIPMENT

VALVES—Globe, Angle, Gate Valves; standard makes; large stock; priced very low. Up to 6-inch. Send for discount sheet. Also pipe fittings. Buffalo House Wrecking Co., Buffalo, New York.

FOR SALE—Located in New Mexico, heavy tools, casing and equipment, including one steel derrick. Just what you need for your operations. Let us furnish you list and prices. Address Box A-358, care The Oil and Gas Journal, Tulsa, Okla.

25,000-BARREL TANK
STILLS, condenser boxes, boilers; large quantity of various size fittings; all in A-1 condition. Priced at a bargain. Call or write F. A. Sanders, 420 Mayo Bldg., Tulsa, Okla., phone Osage 7037, or 98, Jennings, Okla.

FOR SALE—150 feet of 70-pound 15 1/2-inch; 1,000 feet 40-pound 10-inch; 2,700 feet 8 1/4-inch 32-pound 8-thread and 3,400 feet of new 24-pound 6 1/4-inch 10-thread J. & L. Woodlawn. Special casing; 100,000 feet of 2-inch line; 20,000 feet of 2-inch tubing and rods; also, excellent powers, engines, tanks, and other equipment. J. F. Arnold Co., Decatur, Ind.

BRAND NEW, original crates, 2 No. 4 Toledo pipe threaders for 9", 10" and 12" pipe. Price $185.00 each f. o. b. cars, New York. Allen Ashley, 152 W. 42nd Street, New York, N. Y.

FOR SALE
BOILER
50 H. P., Loc. Type, Steel Skids. A1 Condition. Bargain.
O. E. STREHLOW
35 S. Dearborn St., Chicago, Ill.

VALVES AND FITTINGS
15 carloads used valves and fittings from Old Hickory Powder Plant. Crane, Chapman and Walworth. Excellent condition. Almost anything you want in sizes 2" to 16", globe and gate, at attractive prices. Write us.
NASHVILLE INDUSTRIAL CORP.
Old Hickory, Tennessee

P. & H. TRENCH MACHINE
Cuts 24 inches to 28 inches wide by 7 feet, 6 inches deep; wheel type No. 105, has only cut 3/4-mile; gasoline engine drive; cost $13,000—1923—price, $7,100 cars, Indianapolis, Ind.
ROSS POWER EQUIPMENT CO.
Indianapolis, Ind.

FOR SALE—One No. 3 Keystone Drilling Machine, with bits and tools; 3 miles Garnett, Kan.; $800. Box 248, Wellsville, Kan.

COMPLETE Union Tool Rotary drilling rig; twin-cylinder engine; two 45-H. P. boilers; 2,400 feet of 4-inch drill stem; new Hughes rock bit; complete set fishtail bits; mud hog pump. This rig is complete and in good condition. Can be seen at Dixie Oil Co. lease, Cement, Okla.

FOR SALE
New first quality tested black and galvanized pipe, new reinforcing steel bars, also good first-class second-hand pipe, all sizes, with new threads and couplings. We can cut thread to order new and second-hand pipe. We solicit your inquiries. We can positively save you money. We are also in the market at all times for iron and steel scrap, and scrap metals. Get our prices.
S. C. WEBER IRON & STEEL CO.
Chattanooga, Tenn.
Phone: Franklin 653-851

LEASES—PRODUCTION

OIL LEASES on Isthmus of Tehuantepec, Mexico, at very reasonable prices. This district is considered as the Oil Reserve of Mexico, and produces high gravity oil 34 degrees with paraffin base. Good railroads and deep rivers traverse this region, affording unexcelled facilities for transportation. Inquiries solicited. A. J. Rivas, la Iturbide No. 7, Mexico, D. F.

MEDINA COUNTY, Texas acreage, in block now drilling at 1,050 feet, for deep test; close-in and offset acreage at reasonable prices. This is a good bet for quick returns. Address Box 172, Hondo, Texas.

LEASES—PRODUCTION

GUADALUPE COUNTY LEASES

$3.00 AN ACRE

Lease between Seguin and Cibilo River in Guadalupe County, Texas, where dozen of the largest companies in the United States hold leases, and where several tests are soon to be drilled can be had today for $3 an acre. Get particulars.

We also have leases along Marathon Fold and Balcones Fault from 10 cents an acre up. Here are a few of them:

Reagan County	$3.50 an acre
Pecos County	1.00 an acre
Medina County	1.50 an acre
Crockett County	2.00 an acre
Bandera County	.40 an acre
Gillespie County	.10 an acre

30 other counties.

Free map of Texas showing the Marathon Fold and Balcones Fault is given with each inquiry. Write today for our latest list of bargain leases in Texas and free map. No obligation.
GULF REALTY COMPANY
289 Bedell Bldg., San Antonio, Texas

BEST OFFER DRILLS 300-acre lease proven field in Calcasieu Parish, Louisiana. C. O. Cook, Jennings, La.

FOR SALE—6,000 acres in Owensboro, Ky., Field. Approved form lease. Straight 1/8 royalty, 25c rental, three known producing sands. Must sell to close partnership. 25c per acre to quick buyer. Write or wire Box 32, Winchester, Ky.

TEXAS SHALLOW OIL field offers opportunities to make money; am located at Moran, Tex.; wells 250 to 600 feet deep, produce from 1 to 50 bbls. high grade. Now is time to invest. Am here at Tulsa at present, my old home. Address 1720 South Trenton; phone Osage 8831, M. B. Jenson.

OWNER DEEDED LAND—Will sell royalties on approved Colorado structures being drilled by large companies. Limited amount, $3 to $5 per acre. M. Bauer, 1130 LaFayette St., Denver, Colo.

OIL ROYALTIES
On the best structures in Routt and Moffat Counties. Looked upon as one of the most important oil fields in the Country. Get in while prices are reasonable. F. W. Thomas & Co., Mount, Harris, Colo.

OPERATORS—Montgomery County, Mississippi, world's next big oil field; 3,000 acreas leases for well. W. C. Brooks, 282 S. Front St., Memphis, Tenn.

SHEFFIED TERRACE (Marathon Fold) and Balcones Fault leases. We have good located leases along these faults as low as 40c an acre. Wildcat leases as low as 8c an acre. Free map of Texas showing faults. Get particulars. Gulf Realty Company, 288 Bedell Bldg., San Antonio, Texas.

TEXAS

CARSON COUNTY—Our well, the Culbertson strikes oil and gas at 1,210 feet; first shallow record for the Panhandle; we are selling limited amount our acreage around this well; get in while prices are low—now $10 to $100; large companies have acreage about us; late contour map and weekly advice of progress free.
TEXAS-OKLAHOMA LEASE CO.
1418 Kirby Bldg., Dallas, Texas

FOR SALE—Shallow leases, proven territory, Allen County, Ky. 400 feet drilling. One lease 125 acres, 5 wells equipped, except power, exceptional bargain, approximately 25 barrels flush, $6,000.00. Cash or terms. Address Box 80, Scottsville, Kentucky.

$1,000 WILL BUY all the Royalty on 80 acres on structure near 2 drilling wildcat wells. Will pay 8 per cent on investment. Write Box 366, Guthrie, Okla.

LEASES—PRODUCTION

10c AN ACRE to $25 an acre. Texas Oil Leases. Easy terms. Get particulars. No obligations. Gulf Realty Co., 285 Bedell Bldg., San Antonio, Texas.

MARATHON FOLD AND TEXAS PANHANDLE
LEASES in Reagan, Crockett, Pecos, Terrell, Glasscock, Sterling, Gray, Carson, Armstrong, Donley, Wheeler, Hemphill and other counties in Marathon Fold and Texas Panhandle. Lowest prices; best locations. Write for free maps and reports. P. R. MacIntosh, 215 Neil P. Anderson Bldg., Fort Worth, Texas.

FOR SALE—One-half of one-eighth royalty on 80 acres, Pawnee County, near production. Address Box A-362, care The Oil and Gas Journal, Tulsa, Okla.

YOU WILL always be right in reading this Classified Section, as it is the best Petroleum Publication Classified Section in the world. It will help you.

PRODUCING Royalties in Texas bought and sold. J. F. Marion Co., Magnolia Bldg., Dallas, Texas.

MEXICO
We have special facilities for looking after the interests of Oil Companies or individuals whose holdings in Mexico do not justify the maintenance of an office force or manager. Correspondence solicited.
Cia. Bancaria E Industrial de Tampico S. A.
Capital $400,000.00
H. Y. Blake, Manager
P. O. Box 492, Gomez Bldg.
Tampico, Mexico

FOR SALE—625 acres of land, 317 acres with oil right, 70 acres leased; clear title to land, 2 wells drilled near by, by Western Petroleum Co.; 238 acres surface right. John Prevolshek, 312 33rd St. North, Great Falls, Montana.

CLOSE IN LEASE
Half interest in lease about 1 mile from well now drilling Ellis County at $20.00 per acre. Other leases at low prices. W. J. Madden, Hays, Kans.

FOR SALE
250 shares of beneficial interest in Brannon's Royalty Syndicate No. 2, 24 shares of beneficial interest in Brannon's Royalty Syndicate No. 1. This company holds interest in producing royalty in Block 84, Red River lands, Wichita Falls County, Texas. Address all inquiries to S. S. Nossek, Trustee, 423 Wilson Bldg., Dallas, Texas.

FROM NOW ON, when I want to do business with the real men of the petroleum industry, I'm going to put my advertisement right here in this Classified Wants Section.

NEW MEXICO OIL & GAS LEASES
Forty acres for $10. We offer five-year leases in Valencia, McKinley, Sandoval, Torrence, Guadalupe, Quay, De Baca, Rio Arribba, Soccorro and Chaves Counties, from 25 cents to $1 per acre. Perfect titles and low rentals. Write for maps and particulars.
NEW MEXICAN EAGLE OIL CO.
Sapulpa, Okla.

FOR SALE—At bargain prices, oil and gas leases, production and royalties in the Kentucky shallow fields. For full particulars and maps, address W. P. Harley, Bowling Green, Ky.

THE SMALL SUM that it costs to insert an advertisement in the Classified Section of The Oil and Gas Journal enables you to place your desires in the minds of men who are always interested in a good proposition.

16,000 ACRES oil and gas leases in block; Colorado Field. Sell for cash or sublease for drilling contract. Box 2261, Denver, Colo.

FOR SALE—6 barrels settled production; 50 acres; 7 wells; Allen County, Kentucky, including drilling rig. 400-foot drilling. Price $5,500. Box 365, Bowling Green, Ky.

25 CENTS per line first insertion; 15c per line each additional insertion. Cash in advance.

CLASSIFIED WANTS

MAIL your advertisement now. It will be published next week. Cash with order.

LEASES—PRODUCTION

ROYALTY AND LEASES

1-16 Royalty Luling, Texas, adjoining Baker 200-acre lease, adjoining Baker and offsetting Walhunda—Jones drilling in sand; 2,400-acre commercial lease shallow territory; 15,000-acre lease near Humphreys drilling; 25,000 acres fee, good structure, bargain. Cooper, 1609 W. Page, Dallas, Texas.

FOR SALE, LOW PRICE—Half interest in thousand-acre lease; 10 wells, first sand 130 feet; power tanks, lease house; hooked up to pipe line. Wonderful opportunity to sink shaft to first sand. Box 354, Oelwein, Iowa.

MISSISSIPPI

Wildcatters attention: Over two thousand acres five-year leases; well down 1,600 feet; good showings; rig ready to run; expert geology; closed structure. Best proposition in the whole country for the right man. Requires quick action. Address Box A-357, care The Oil and Gas Journal, Tulsa, Okla.

YOU DON'T QUESTION whether the Standard, the Ohio or Unon Oil companies know their business. The Wall Syndicate controls the largest, highest dome in New Mexico, townships 25 and 26, actually 2,600 feet higher than Amarillo, same monocline; (See monoclinal crosscut from government's report, page 14, July 17th issue of The Oil and Gas Journal.) Standard drilling day and night, SW 15-23-24, Colfax County. Eureka's well with 6 sands excellent showings, proving structure. Offering 40-acre tracts at $10 per acre. Bearing full investment interest in well, lease actually bonus. We are much higher and better located than other drilling wells. Local or district representatives wanted. Wall Syndicate, Box 824, Wichita, Kans., or 429 17th St., Denver, Colo.

FOR SALE—185 acres, grain farm with good set of improvements. Located on a direct line midway between Central Ohio's newly developed oil fields. Melrose east, Payne west. Oil prospects. Inquire of the owner, Box A-351, care The Oil and Gas Journal, Tulsa, Okla.

WHITE SPACE at the top and bottom of an advertisement makes it conspicuous. Ask for it in your next advertisement. Figure the cost at the regular rates per line.

WE HAVE acreage to exchange for a test well on structure, also mines for sale. Tell us what you want. Colorado Mineral Developing Co., 122 Pope Block, Pueblo, Colorado.

OPERATORS ATTENTION

Survey 2,458, south part Archer-Baylor County, surrounded by many drilling tests and producers. Worthy of prompt investigation. Will sell in fee 120 acres at $100 an acre. Address owner, Jno. J. Dillon, P. O. Box 194, Denver, Colo.

FOR SALE—200-acre lease, 4 wells, near Albany, Ind. Production 200 bbls. month. Fully equipped, all new, closing estate, sacrifice, further particulars address Chas. J. Metz, 1756 Mohawk St., Chicago, Ill.

OIL LEASES and royalties in the Blackwell, Deer Creek and Tonkawa Field for sale. Have the S½ of 14-28-3 west for $5.00 per acre, 5-year lease, joins Marland block. Wire me today if you want a bargain. J. R. Sparks, Blackwell, Oklahoma.

I HAVE some desirable leases on a big structure in Eastern Kentucky at $1.00 per acre, also coal land, timber tracts and producing properties. E. D. Watkins, Oil Producer, Irvine, Ky.

LEASE FOR SALE.—Stroud district, Oklahoma; south half, northwest quarter, Section 33-14-6e. Box 423, Chanute, Kans.

FOR SALE—Oil lease on 160 acres at Cotton Valley, Louisiana. Near production. Address, W. C. Lawrence, owner. 510 The Arcade, Cleveland, Ohio.

HELP WANTED

THE SCHEME of life is so arranged that some men have capital and need equipment, while others have salable articles and need cash. For these men, The Oil and Gas Journal Classified Section provides an excellent opportunity to broadcast their wants.

POSITION WANTED

POSITION WANTED.—Geologist; young man will be open for position about September 1. Would like to work up with responsible company, or will consider cut proposition. Write Box 365, care The Oil and Gas Journal, Tulsa, Okla.

TANK CAR FOREMAN, understands rebuilding, repairing and painting of tank cars, also A. R. A. rules, prices and tank car specifications, wants position with tank line or refinery. Best of references furnished as to ability and energy. Address C. F., care The Oil and Gas Journal, Tulsa, Okla.

WANTED — Position by experienced oil man, where investment could be made if things were satisfactory. Understand business thoroughly; references furnished covering a period of twenty years. Salary second consideration. Wish something steady. Colorado preferred. Address Box A-355, care The Oil and Gas Journal, Tulsa, Okla.

SUPERINTENDENT of tools and production and expert fisherman, desires connection with reliable oil company; years of practical experience. Can go anywhere. Address P. O. Box 725, Tulsa, Okla.

INDEPENDENT OPERATOR with 15 years experience would like to represent company, group or individual in securing cheap leases on structure in Colorado on an interest basis. Familiar with the territory, know values and can get results. Best of reference furnished. Address Box A-353, care The Oil and Gas Journal, Tulsa, Okla.

HIGH CALIBRE Sales Executive, twenty years experience in domestic and foreign markets, open for position with company in a position to handle volume business in refined products. Address 170 Broadway, Room 201, New York, N. Y.

POSITION WANTED

Accountant, Stores Superintendent and Departmental Organizer; Economy and System Expert; Buyer and Technical Correspondent; high executive experiences on Venezuela and Trinidad Oil Fields, etc.; desires change. Now in Trinidad. First-class testimonials. Address Box A-350, care The Oil and Gas Journal, Tulsa, Okla.

WANTED

WANTED—Parties to join in development of two oil properties on actual cost basis, whatever that may be. Kentucky, 150-acre lease, $3,000.00, drilling about $2,000. Indiana, 80 acres or 160 acres, one or two wells at about $3,000 each. And a square deal! Marshall L. Wotton, 709 North L. St., Tacoma, Wash.

WANTED — Vacuum cylinder for steam engine base; prefer 14" bore; give full particulars; also size engine required to pull it. Address Box A-364, care The Oil and Gas Journal, Tulsa, Okla.

WANTED—Shallow acreage to drill for oil or gas, must be rock bottom proposition. Address Box A-361, care The Oil and Gas Journal, Tulsa, Okla.

WANTED—Parties to drill leases in Oklahoma, adjoining production, and in Kansas, shallow fields, on 50-50 plan. Co-operative Oil Co., Vinland, Kans.

WANTED—To buy a good Star No. 28 rig. Address J. W., 1240 N. Cheyenne St., Tulsa, Okla.

WANTED—6" pipe threading machine with rotating chuck. M. H. Murray, 311 Grosse Bldg., Los Angeles, Calif.

WANTED

WHITE SPACE at the top and bottom of an advertisement makes it conspicuous. Ask for it in your next advertisement. Figure the cost at regular rates per line.

WE WANT TO BUY ENGINES

Full Diesel and Gasoline Engines 50 HP up to 200 HP. Submit full details including price, age, photo, cylinder and overall dimensions and full information in first letter. Address Box A-331, care The Oil and Gas Journal, Tulsa, Okla.

WANTED—Reliable party to drill test wells in Morehouse Parish, La., for acreage. Interesting tests in vicinity now being made. Address Box A-345, care The Oil and Gas Journal, Tulsa, Okla.

WANTED—Producing royalties, Oklahoma and Kansas. Give full details. P. O. Box 502, Independence, Kans.

WRITE your advertisement, mail it to The Oil and Gas Journal, and it will be placed in the hands of thousands of producers and refiners in all parts of the world. It doesn't cost much.

WANTED—10,000 feet of second hand 3-inch line pipe. Premier Window Glass Co., Pennsboro, W. Va.

FROM NOW ON, when I want to do business with the real men of the petroleum industry, I'm going to put my advertisement right here in this Classified Wants Section.

WANTED—To buy interest in production. Have ten to twenty thousand dollars, drilling tools, and casing to invest with some one who desires partner who will look after business and lease and go ahead and do some new drilling. Address J. F. S., 246 No. Holyoke, Wichita, Kans.

WANTED—Block of securities to market on commission, by reliable house. Money should be for development. Brokers, U. S. Realty Building, suite 512, New York.

BUSINESS OPPORTUNITY

CORE DRILL your structure with diamond drills and reduce the hazard of wildcatting. Let us help your geologist correlate structure before you put cable tools at work. The cost is relatively small and the possible saving enormous. On well located tracts we will accept acreage in lieu of profits. Drilling Corporation of America, George H. St. Clair, General Manager, 205 Cosden Bldg., Tulsa, Okla. Phone Osage 8183.

RELIABLE DRILLING reports of the Artesia, New Mexico, oil field given each week by the Artesia Advocate at Artesia, New Mexico. Subscription price $2.50 per year.

CAPITAL SEEKERS confronted with difficult financing problems should consult Amster Leonard, First Nat'l Bank Bldg., Chicago, Ill.

OPERATOR with thorough knowledge of Wichita, Archer and adjoining counties and with three rigs now idle desires to form connection with party who can raise $50,000.00 to drill ten semi-wildcat wells in this district, reference exchanged. Address Box A-352, care The Oil and Gas Journal, Tulsa, Oklahoma.

FOR SALE

Completely equipped machine shop employing 11 men, near shallow oil field, another now opening; a good paying proposition; 17 years in business; only shop in 50 miles radius; reason for selling, owners going into implement manufacturing business. Cameron Machine Shop, Cameron, Texas.

PANHANDLE, Carson County, Texas, the coming oil city. Trackage, business and residence lots for sale by owner. Fred Horsbrugh, Amarillo, Texas.

WILL RAISE MONEY on or buy outright partially developed leases in any State. Give full details first letter. Room 618 Pontiac Bldg., St. Louis, Mo.

BUSINESS OPPORTUNITY

OIL MAN, do you need a telephone at the well you are drilling? We can save you money on the building of your telephone and electric lines. Name the town and distance and we will be glad to submit our estimate on the complete installations. We are equipped and have the experience on telephone, electric and telegraph lines.

OKLAHOMA
HIGH LINE CONSTRUCTION CO.

805 Mayo Bldg.

Tulsa, Okla. Phone Cedar 2551

INCORPORATIONS

OKLAHOMA Incorporator. Service agent. Charters and forms, moderate fees. L. M. Nolan, Oklahoma State Capitol Bldg., Box 145, Oklahoma City, Okla.

DELAWARE incorporator. Charters; fees small; forms. Charles G. Guyer, 901 Orange St., Wilmington, Del.

FOR SALE—PETS

FOR SALE—3 registered English Setters, 2 male, 1 female, $50 each. Address C. A. Hack, Route 2, Tulsa, Okla. O-9821F2.

REGISTERED Bull Pups—Bulldog Park, 501 Rockwood, Dallas, Texas.

STANDARD FORMS

CONSUMERS' LEDGERS

We are prepared to furnish from stock standard forms of Gas Meter Consumers Ledgers. Sample forms and quotations on request. First class material and workmanship.

DERRICK PUBLISHING CO.
Oil City, Penn.

OIL FIELD LEGAL BLANKS—Leases, assignments, releases, township plats, gauge books, run tickets, time books, well records, etc. Request on your letterhead gets free catalogue. Olds Press, 215 East Third St., Tulsa, Okla.

OLD FRIENDS

ANYONE knowing the whereabouts of Dr. J. R. Pitts, who was located in Slick, Okla., in 1921, kindly notify the Red Cross or U. S. Veteran Hospital No. 55 at Fort Bayard, New Mexico.

WELL LOGS

PLATTED LOGS of 17 wells drilled in Hopkins County, Texas, $8.00 per set or 50c each. G. C. Mann, Box 374, Sulphur, Springs, Tex.

FOR SALE MAPS

COUNTY MAPS of any county of States of Missouri, Kansas, Arkansas and Oklahoma, 25c. Adams Engineering Co., Oklahoma City, Okla.

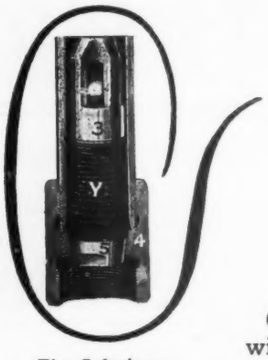
GEOLOGICAL MAP of Oklahoma just completed including all recent geology over entire State. Address Mead Johnson, Okmulgee, Okla.

ADVERTISING RATES

The cost of advertising in the Classified Wants Section is very reasonable. It costs 25 cents a line for the first insertion and 15 cents a line for each following insertion. Six words usually make a line. Cash with the order.

This useful table will help you to figure the cost of advertising in this Classified Section. Keep it for reference:

	One Time	Two Times	Three Times	One Month
3 lines..	$ .75	$1.20	$1.65	$2.10
4 lines..	1.00	1.60	2.20	2.80
5 lines..	1.25	2.00	2.75	3.50
6 lines..	1.50	2.40	3.30	4.20
7 lines..	1.75	2.80	3.85	4.90
8 lines..	2.00	3.20	4.40	5.60
9 lines..	2.25	3.60	4.95	6.30
10 lines..	2.50	4.00	5.50	7.00



The Solution—

THE ROARK

No Cups or Leather Rings

Furnished for All Standard Working Barrels

California Type Ball and Seat (oversize) Eliminates Pounding Regardless of Speed

A Source of Cut Oil and B. S. Never Suspected Before

Old-style standing valves, with their loose, leaky leather rings, have still another evil to answer for. Much of the excessive B.S. and cut oil that you must put up with is directly traceable to the standing valves that let in the crude.

The experience of a Brook Field, Carter County, well—where the B.S. was reduced more than 75%—is absolute proof. It supports the scientific theory which says that the suction (standing) valve of an oil well should *always* be bigger than the discharge (traveling) valve. (Otherwise the crude, forced at high speed thru too-narrow passages, and subjected to a certain amount of vacuum, suffers a reduction in gravity. B. S. and cut oil result.)

But the old-time, inefficient standing valves, being *inside* the working barrel, *can't be* bigger than the traveling valve. That is why the ROARK—the only valve entirely *outside* the working barrel, is meeting with such wonderful success. It is a new idea. It discourages cut oil and B. S., increases maximum pump stroke, and eliminates leather rings and cups! Reasons enough to try it, aren't they? At your supply house or direct.

You will find a trial worth while

121

Texas Oil Pump Co

Waco, Texas

SKIMMING PLANT THAT WEATHERS BAD STORMS

(Continued from Page 84)

20 hours to drive off the lighter fractions of the oil, leaving the cylinder stock. Pumping out consumes another hour, after which the still is steamed for an hour, obtaining a little slop, and the charging is started again.

The light oil vapors are passed over two vertical dephlegmating towers in series, the first measuring 5 by 25 feet and the second 5 by 20 feet. The towers have several baffle plates and a large perforated plate upon which three feet of crushed rock has been placed. The towers are similar in construction, the size being the only difference. Reflux lines from both towers lead back to the still. Gasoline, naphtha, kerosene and distillate vapors are passed over the towers, which are then by-passed for the gas oil and wax distillate. These vapors are led from the still directly to the condensers, which are steel boxes measuring 8 by 8 by 40 feet.

Vapor Lines

The vapor lines from the main stills are 10-inch. They lead to a 10-inch manifold across the front of the condenser box from which nine 3-inch lines drop into the condenser making a nine-high coil. The condensate passes through a separator just before entrance to the tail house where the water is separated from the other liquid. Due to the discoloration of the vapor lines from condensing the heavier crude portions in the coils, the gasolines, naphthas and kerosenes become discolored, when the stream starts over with the next batch. For this reason, a fourth 500-bbl. still is used as a rerun still to obtain color and get the proper fractionation for the various cuts from the crude benzine stream. The vapor lines on this still are 8-inch in size and the double tower fractionation is used. A 250-bbl. still without fractionating towers is used to run slop which is gathered up from the property. Fire and steam are used at all stills.

Samples of the contents of the still are taken as the wax distillate passes through the condensers, in running down to cylinder stock. When the fire test in the laboratory shows that it is close to 600 degrees Fahrenheit, the heat is shut off and the residue is cooled and then drawn off through a tar line which runs through short coils in the tar box. Thus the temperature of the still contents is cooled from approximately 600 degrees Fahrenheit to about 250 degrees Fahrenheit before reaching the pump which forces it to storage.

Quality Stressed

"Steam refined cylinder stocks should be smooth, free from grain, with practically no carbon or tar content and no sulphur," said Mr. King. "They should have a low cold test and as high a flash and fire as possible. As most of the steam refined cylinder stocks are used to make bright stocks, the refiner should make an effort to produce a lubricant that will not burn or corrode in the internal combustion motor. The largest part of the bright stock output is blended with neutrals for the production of motor oils."

In rerunning the crude benzine, the operators are able to get the higher gravity gasolines such as 64-66, 375 and 60-62 400 as well as U. S. Motor and naphthas. As in the previous distillation, the stream is run to gravity and then switched to another tank. An agitator of 250 barrels capacity is never used except for an occasional export order.

Absorption Plant

A small absorption plant utilizes tail house and tank gases and makes from 300 to 500 gallons of gasoline daily. A charge of 4,500 gallons of naphtha is placed in a storage tank and the naphtha is forced through the absorber and back into the tank again, increasing in gravity with each circulation. Gas is forced through the absorber at 50 pounds pressure by a small steam compressor. The gas is cooled in a small coil pit before absorption. The oil is cooled before and after absorption also. An accumulator tank catches considerable condensate from the compressed gas before it hits the absorber. When a still is started up the condensate will increase at the rate of 2 or 3 gallons per minute for a short time. This condensate is mixed with the naphtha. When the naphtha has reached gasoline specifications, it is drained from the storage tank and a new charge is pumped in. The cycle is completed in 5 to 6 days ordinarily, according to Mr. King. Careful operation and the small absorption plant cuts the loss in refining to a very low point.

Because of the quality of the products, the company has been able to sell much of its output at a premium. One service station operator in Okmulgee has paid a 2-cent premium for this concern's gasoline for several months. Premiums for the special green steam refined cylinder stocks are customary. This stock made from the Morris crude is claimed to be a duplicate of the best Pennsylvania stocks.

Financial Results

In comparison to fuel oil at 85 cents per barrel, the sale of the darker green steam refined cylinder stock at 7½ cents per gallon shows a revenue of 3.15 per barrel or a difference of $2.30 per barrel. On the special stock made by the Allied it is considered fair to place a price of 15 cents per gallon or $6.30 per barrel, making a difference of $5.45 per barrel between the price for the residue of the still sold as lubricant compared to that sold as fuel oil. Such a comparison cannot fail in its attempt to show the benefits which accrue to refiners who are zealous in their attempts to obtain every penny of revenue possible from the crude which they use in their plants.

The remarks on the operation of this plant should not be taken to mean that all Mid-Continent refiners should or could change their methods to make steam refined cylinder stocks. The market for such lubricants is limited and in slack periods large stocks often accumulate. A mixture of crudes such as most refiners use is not applicable to the production of cylinder stocks which necessitate use of only the best crudes. Consequently it is not to be expected that many refiners will change from their present methods. But it is to be hoped that the Mid-Continent refiners will study their crudes and their plants in an attempt to utilize to the fullest extent the materials which they use and the products which they can make as a step in more efficient and economical operation.

EUROPE USING MORE GASOLINE EACH YEAR

NEW YORK, Aug. 16.—"Gasoline consumption in Europe is increasing about 15 per cent a year," said Walter C. Teagle, president of the Standard Oil Co. of New Jersey, returning from abroad.

"The oil business in Europe is running along normally except in Rumania, where the situation is very bad. I simply reiterate Mr. Bedford's remarks on the subject. Rumania is adopting a very poor and a very short sighted policy for a country that needs money as she does. Her railroads and other industries are in a deplorable condition. Rumania is now producing only about 40,000 bbls. of oil a day. In 1923 her total production was 1 6-10 per cent of world production and oil investors are not going to be sick going into Rumania when 98 4-10 per cent comes from the rest of the world.

"General conditions in Europe are improving and should improve further with adoption of the Dawes plan."

OIL VERSUS CABLES

Development of Kamchatka peninsula for oil, urged on Moscow authorities, would, it is said, threaten catch of sables, 5,000 annually with approximate value of $500,000, furnishing a fourth of Russia's supply.

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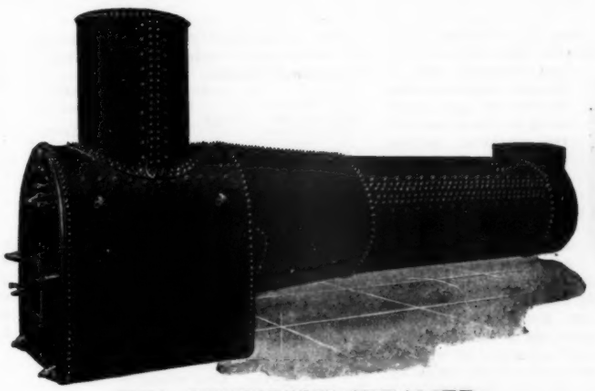

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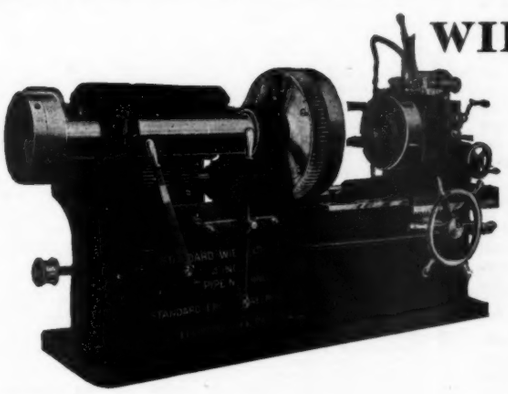

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Securities Weaker on Dividend Passing

Taken to Indicate Unfavorable Conditions in Industry at Present. Situation Aggravated By Increasing Production

By N. O. Fanning
Room 543, No. 30 Church St., New York

NEW YORK, Aug. 16.—Passing of the dividends on Atlantic Refining common and Standard Oil of Kansas stocks was the feature of the past week in the oil securities markets. Action by both companies was somewhat of a surprise, although reports that the former would pass its dividend had been current in financial circles. Atlantic Refining stock had previously sold down to 78½ and the announcement that the common dividend had been passed did not press the stock below 80. On the other hand, it advanced to around 85. Standard of Kansas stock broke to around 35, a new low for the year.

Oil securities as a whole were irrgeular, weakness in some issues being attributed to the adverse sentiment created by the dividend omissions referred to. Passing of dividends by former Standard Oil subsidiaries, not in the so-called pipe line group, is an event, and forms definite indications of the unfavorable condition of the oil business at present.

The fact that there are no indications of definite improvement in the statistical position of the oil business with summer well under way does not give particular promise for the future. If nature comes to the rescue and stems the flow of new wells in the Mid-Continent Field, relief will surely come, but there is every indication now that efforts to stem production so far have been only half-hearted and that drillers are continuing to have good luck in striking good sized wells in new sands. Thus the unfavorable situation is constantly aggravated.

No upward move in oil stocks as a group is expected unless the general oil situation shows improvement before the end of the year, so that prices of crude and refined close the year higher than they began it. If the price situation improves before January 1, however, good earnings for 1924 should be the rule.

Financial statements of oil companies for the first half of this year so far issued are highly favorable, but they do not show the subsequent decline in oil prices, and therefore cannot be taken as an indication of what to expect for the full year.

Shell Union Oil

The Shell Union Oil Corp. and subsidiaries report for the quarter ended June 30, 1924, net profit of $6,103,589 after expenses, depreciation, depletion, etc., but before federal taxes, equivalent after preferrd dividnds to 58 cents per share earned on 10,000,000 no par value common shares. This compares with $5,362,096, or 50 cents per share, in the preceding quarter, and net profit of $7,384,706, or 88 cents per share earned on 8,000,000 common shares outstanding in the second quarter of 1923.

For the six months net profit was $11,465,685, equivalent after preferred dividends to $1.08 per share, against $10,802,849, or $1.27 per share, in the first half of 1923.

The consolidated income account of the Shell Union Oil Corp. and subsidiaries for the quarter ended June 30, 1924, compares as follows:

	1924	1923
Total income	$13,392,788	$11,295,881
Depreciation, depletion, etc.	6,289,199	3,911,175
*Net income	$ 6,103,589	$ 7,384,706
Preferred dividends	295,752	.....
Common dividends	2,500,000	.....
Surplus	$ 3,307,837	.....

*Before federal taxes.

The consolidated income account for the six months ended June 30, 1924, compares as follows:

	1924	1923
Total income	$23,452,726	$18,082,472
Depreciation, depletion, etc.	11,987,041	7,279,623
*Net income	$11,465,685	$10,802,849
Preferred dividends	595,752	600,000
Common dividends	5,000,000	4,000,000
Surplus	$ 5,869,933	$ 6,202,849

National Supply

The National Supply Co. of Delaware and subsidiaries, for the six months ended June 30, 1924, report net income of $1,343,616, after federal taxes and other charges, equivalent after preferred dividends to $4.12 per share (par $50) earned on the outstanding $13,272,595 common stock. This compares with net income of $3,023,039, or $11.50 per share, earned on $12,066,025 outstanding in the first half of 1923.

The consolidated income account for the first six months of 1924 follows:

Gross earnings	$3,727,478
Expenses	2,012,412
Net earnings	$1,715,066
Other income	374,653
Total income	$2,089,719
Other deductions	551,451
Federal taxes	194,652
Net income	$1,343,616

Marland Oil

The report of the Marland Oil Co. and subsidiaries for the six months ended June 30, 1924, shows net income of $3,662,449 after interest, depreciation, depletion, etc., equivalent to $2.38 per share earned on the outstanding 1,534,762 no par value shares of capital stock.

The net production of crude oil by the company in July was 22,000 bbls. daily, according to President E. W. Marland. Pipe line runs from the company's own properties, royalty oil and other oil purchased amounted to 1,209,411 bbls. in July. Total sales of crude in July were 990,139 bbls., while 219,272 bbls. were added to storage. The company has approximately 2,000,000 bbls. of empty tankage available for crude oil.

S. O. New Jersey Dividend

Directors of the Standard Oil Co. of New Jersey declared the regular quarterly dividend of 25 cents a share on the common stock and the regular quarterly dividend of $1.75 a share on the preferred stock, both dividends being payable September 15 to stockholders of record August 25. The Standard Oil Company of Ohio declared the regular quarterly dividend of $2.50 a share on the common stock, payable October 1 to stockholders of record August 29.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

No.	Stock—	Par	‡Dividend Rate	Closing Quotations Aug. 18	Aug. 11.	Range 1924 High	Low
1.	American Republics	..	..	*35	*40	43	25
2.	Associated Oil	25	6	29	28¾	34⅝	27⅝
3.	Atlantic Refining, common	100	4	85¼	88½	140½	78½
4.	Barnsdall "A"	25	..	21¼	19¾	21⅝	14
5.	California Petroleum, common	25	7	22½	22¼	29¼	21⅝
6.	Cosden & Co., common	..	..	27⅝	27½	40¼	23⅛
7.	General American Tank	..	†3	47	42	46¼	35½
8.	General Asphalt	100	..	46½	44	49	31⅝
9.	General Petroleum	25	8	41⅝	42½	45	38⅝
10.	Houston Oil	100	..	71¼	69½	82½	61
11.	Independent Oil & Gas	10	..	..	7¾	9¼	6⅝
12.	Indian Refining	10	..	*6	*6	7	3⅞
13.	Invincible Oil	50	..	12⅜	13½	15⅞	11⅝
14.	Maracaibo	..	..	29	28	37½	25⅝
15.	Marland	..	..	32⅜	31¼	42	29
16.	Mexican Seaboard	..	..	21⅝	20⅜	24⅛	14⅛
17.	Middle States Oil	10	..	1⅝	1⅝	6⅞	1
18.	National Supply	50	6	59	*57	72½	55¼
19.	Pacific Oil	50	†3	48½	47⅞	58¼	45
20.	Pan-American Common	20	16	56⅜	56	61¼	44¼
21.	Panhandle Prod. & Ref.	..	..	*1⅜	*2½	4½	2
22.	Phillips Petroleum	..	†2	34½	34⅝	42¼	32⅜
23.	Producers & Refiners	50	..	30	31	43½	22⅝
24.	Pure Oil common	25	6	24	23¼	26⅜	20
25.	Royal Dutch, N. Y. sh.	13.40	2.62	43⅝	44⅝	59½	41½
26.	Shell Transport	10	x92½	*35	*35½	41½	33
27.	Shell Union, common	..	†1	16⅝	16½	20¼	15⅝
28.	Simms Petroleum	10	..	14	13⅞	14⅞	10⅝
29.	Sinclair Consolidated, common	..	†2	17½	17¼	27½	15
30.	Skelly Oil	25	..	18⅝	18⅝	29	17⅝
31.	Standard of California	25	8	58½	58⅝	68½	55½
32.	Standard Oil of New Jersey	25	4	36	35½	42½	33
33.	Standard of New Jersey, pfd.	100	7	*118	118	118⅝	115¾
34.	Superior Oil	..	..	5½	6	8⅛	2⅝
35.	The Texas Co.	25	12	40⅝	40⅝	45⅝	37¾
36.	Texas Pacific Coal & Oil	10	..	9¼	9⅜	15¼	8½
37.	Tide Water Oil	100	4	120½	*122½	151	118¼
38.	Transcontinental	..	..	5⅞	5	6¼	3¾
39.	Union Tank, common	100	5	120	118	121½	94
40.	White Eagle Oil & Refining	..	2¼	23⅞	23⅞	29⅝	23⅛
	Standard Oil Stocks						
41.	Anglo-American Oil	£1	25	*15	15	18	14⅜
42.	Borne Scrymser	100	12	*210	215	264	150
43.	Buckeye Pipe Line	50	14	60½	60	85½	60
44.	Cherebrough Mfg., common	25	11	49	49⅝	43⅝	29¼
45.	Continental Oil	25	8	*43	*43	54⅞	42½
46.	Crescent Pipe Line	25	..	*11½	11½	20	11½
47.	Cumberland Pipe Line	100	10	*143	*144	144	109
48.	Eureka Pipe Line	100	8	*95	*95½	105	95
49.	Galena-Signal common	100	4	58	*57⅜	69¾	55¼
50.	Humble Oil & Refining	25	4.8	35¼	36	43⅜	36
51.	Illinois Pipe Line	100	12	133½	*132	161	131
52.	Imperial Oil, Ltd.	25	12	104½	103	119	99
53.	Indiana Pipe Line	50	16	90½	90	100	85
54.	International Petroleum Co.	100	x50	19	19	22¼	16⅞
55.	Magnolia Petroleum Co.	100	4.5	*132	*135	160	124
56.	National Transit	12.50	16	21½	*21½	25⅞	21¼
57.	New York Transit	100	10	64	*64	97	64
58.	Northern Pipe Line	100	6	*83	*83½	107½	80½
59.	Ohio Oil Co.	25	8	59	58⅞	79½	58
60.	Penn-Mex. Fuel	25	..	*33	33⅜	46⅝	32⅜
61.	Prairie Oil & Gas	100	8	209½	212	269	194½
62.	Prairie Pipe Line	100	8	105⅝	107	111	100
63.	Solar Refining Co.	100	15	185	*182	225	170
64.	Southern Pipe Line	100	16	91	94	100	89½
65.	South Penn Oil	100	..	129	130	176	117
66.	South West Pa. Line	100	8	*85	*86	89	80
67.	Standard of Indiana	25	10	58⅝	57⅝	58⅜	54½
68.	Standard of Kansas	25	10	35½	35⅝	50½	35⅝
69.	Standard of Kentucky	25	16	114½	111½	120	101
70.	Standard of Nebraska	100	20	240	245	256½	198
71.	Standard of New York	25	5.6	39⅝	39½	48	37⅝
72.	Standard of Ohio, common	100	10	289	*283	236	277
73.	Swan & Finch, common	100	..	20	*42	81	34
74.	Vacuum Oil	25	10	65⅛	64	69¼	56½
75.	Washington Oil	10	10	*29	28½	29	25
	Miscellaneous Stocks						
76.	Cities Service, bankers' shares	..	†21	*13	*13	16	13¼
77.	Gulf Oil Corp. of Pennsylvania	25	6	*59	59½	65	56⅝
78.	Mutual Oil	5	10	11⅛	11⅛	14	9⅝

*Bid, no sales. †In dollars. ‡The figures in this column are kept up to date as far as possible, but are not guaranteed. xCents per share.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

Aug. 18	47.85	July 14	46.96	June 10	47.63
Aug. 11	47.48	July 7	48.26	June 3	48.88
Aug. 4	49.71	June 30	47.69	May 27	49.01
July 28	47.86	June 23	46.92	May 20	48.25
July 21	48.28	June 17	47.94	May 13	48.24

PACIFIC COAST REFINED PRODUCTS HOLD STEADY

LOS ANGELES, Cal., Aug. 16.—Pacific Coast refined products are holding steady. The only significant price change which has come to light during the past week has been the renewal of a contract for a considerable output of compression natural gasoline at 12 cents per gallon. This same output was contracted during the past year at 10 cents. The commodity is 83-84 gravity, and has a 350 end point.

Absorption gasoline is still being picked up at market prices in order to make up export motor gasoline cargoes. Some of the gasoline intended for British consumption is now being sold on specifications having an unusually low 40 or 50 end point, thus requiring the blending of large quantities of natural gasoline with straight run to meet the required tests. Some of these blends are taking as much as 50 per cent of natural gasoline. The result of this demand has been the steadying of the natural gasoline market at between 10½ and 11 cents per gallon. No advance seems likely, and at the same time no great recession in this price is expected until well along in the fall.

Local motor gasoline consumption on the Pacific Coast is very satisfactory. From present indications it is fully 20 per cent in excess of last summer's consumption. There is still considerable price cutting, in Southern California the ruling price f. o. b. refinery being 11 cents to 12 cents per gallon without tax.

No activity is yet noticeable in the kerosene market, and all the heavier distillates are soft, despite their exceedingly low established prices. Most of these products are being cut back into fuel oil to facilitate storage and sale.

Fuel oil is maintaining its tidewater price of $1.40 per barrel very steadily. No price changes are reported in lubricants, and sales are just a little slow. There is practically no forward buying, and present requirements have apparently already been taken care of by purchases made earlier in the season.

DEATH OF J. C. LINEMAN

John Charles Lineman, 65 years old, died at Victoria, B. C., Canada, recently, during an automobile trip from his home in Pasadena, Cal. Mr. Lineman was driving his car when he was stricken. He was one of the prominent oil producers in the Lima, Ohio, Field and had done much toward the development of that field before moving to Pasadena three years ago. He had a large stock farm at Lima, and was the owner of a large hotel there in addition to his oil interests and considerable city real estate. He was a keen sportsman and at one time was a champion shot.

Late News From the Fields

OKLAHOMA

The number of deep sand producers in the Tonkawa Field was increased to 12 on Monday and the total production of the 12 producers on that day was at the rate of 46,600 bbls. a day which promised very soon to be increased to 50,000 bbls. when the wells were a little deeper in the sand. The brace of new gushers were T. B. Slick and the Comar Oil Co.'s No. 5, SE cor. SW SW, Section 35-25-1w, which got sand at 4,020 feet and at 5 feet in produced 700 bbls. in 6 hours, and the Comar Oil Co.'s No. 1-W, SE cor. NW, Section 34-25-1w, which flowed 900 bbls. in 6 hours and made 220 bbls. the sixth hour, from sand at 4,143-48 feet.

The Roxana Petroleum Corp.'s test in Section 12-8-8, Hughes County, was flowing 220 bbls. a day along with a tremendous volume of gas and was looking better than ever.

The Henry Oil Co.'s test, SW cor. NE, Section 36-12-9, about 3 miles north of the town of Wewoka, got sand at 3,140 to 3,170 feet and then a break to 3,208 feet where another sand was uncovered and the hole filled with oil. This is an important wildcat showing.

T. B. Slick's wildcat in Section 35-10-9 had increased to 50 bbls. an hour from sand at 3,330 feet only penetrated 1½ feet.

What looks like a failure in the Cromwell Pool is the Berry Petroleum Co.'s No. 2 Yahola, SW cor. NW NE, which got sand at 3,472 feet with a small showing of oil. Salt water at once began to fill the hole. There are no less than six wells in the south end of the Cromwell Field that have had doses of salt water and there are two others in the center of the field in which, it is reported, the production is somewhat cut by salt water and the heavy gas pressure. The Central National Oil Co.'s well in Section 4-10-8 was flowing 1,140 bbls. a day on Tuesday.

Most of the drilling wells in the southern Oklahoma fields have been shut down by common agreement among the operators, and, according to the present program none but necessary wells will be finished. Recent completions include the Sure Oil Co.'s No. 7 Martin, C W half SW SE, Section 15-4s-2w, Carter County, sand at 1,117-2-120 feet, 15 bbls.; Carter Oil Co.'s No. 14 Ward, CWL SW SE, Section 16-4s-2w, sand at 2,235-90 feet, 40 bbls.; same company's No. 46 Noble, SE cor. NE NE SE, Section 21-4s-2w, a sand at 2,235-97 feet, 62 bbls.; Skelly Oil Co.'s No. 16 Dillard, SE cor. NW SE NE, Section 22-4s-2w, sand at 2,150-2,550 feet; 225 bbls. Westheimer & Daube's No. 5 Dillard, NW cor. NE SW SW, Section 22-4s-2w, broken sand at 2,303-90 feet, 50 bbls.; Wolverine Oil Co.'s No. 52 Dillard, SW cor. SE NW SW, Section 22-4s-2w, sand at 2,293-2,340 feet, 90 bbls.

The Texas Co. abandoned as dry its No. 1 Williams, SE cor. Section 5-7s-5w, Jeffrson County at 1,810 feet.

In Washita County R. B. Hartman, abandoned a deep test, NE cor. SW SE Section 23-9n-17w at 4,150 feet.

GULF COAST

The Cole Petroleum Co.'s burning gas well near Bruni, Webb County, which blew in July 22 and got fire has been extinguished after burning for 22 days. The flame was extinguished by slipping a 14-inch pipe over the casing with the aid of tractors and wire cables.

The daily average output of the Luling Field is slipping with the sulphur water gaining on the wells. On the Caldwell County side, the United North & South Oil Co. completed No. 3 Moore, near the river, good for 800 bbls. initial and No. 6 Gideon rated at 500 bbls. The latter is producing from 2,600 feet instead of the usual lime at 2,150 feet. No. 9 M. Mercer is flowing 500 bbls. Nos. 6 and 7 Moore came in late in the week making 500 bbls. each. No. 3 Roberts, another river bank well, is being drilled deeper into the lime. It would have made a light well at the usual depth.

On the Guadalupe County side, the United North & South Oil Co.'s No. 20-A Allen was reported making 1,200 bbls. initial, but soon showed a large percentage of water. The J. K. Hughes Development Co.'s No. 7 Allen is a 200-bbl. well.

The drilling campaign proposed by the United North & South Oil Co. has been curtailed very much, contracts for 25 new wells having been cancelled until market conditions improve. The Texas Co. has abandoned locations on its Allen acreage in Guadalupe County and the Magnolia Petroleum Co. only has two rigs running on its Schubert lease. The Grayburg Oil Co. and J. K. Hughes Development Co. have also reduced the number of rigs in operation.

The Marland Oil Co. has entered the Somerset Field, its leases covering production below 2,000 feet. Present production there is from the Taylor Marl from 1,250 to 1,775 feet. Three deep tests are scheduled for the Atascosa side of the field. One will be drilled by Underwood and associates, one by the Sinclair and the third by Danciger Brothers. T. B. Slick is rigging for a test 10 miles west of Elmendorf and the Humble Oil & Refining Co. has a location 10 miles east of San Antonio.

Everett's No. 2 Stitz in McMullen County, is showing oil at 3,009 feet and is shut down waiting on casing.

The Inca Production Co.'s No. 4 Duke, in the Goose Creek Pool, is showing for a producer, with 4½-inch strainer set at 3,640 feet. It is clearing itself and heading up through the casing. A liner will be set. The location is one-quarter of a mile north of production.

PRICE DISCRIMINATION CHARGED IN SUITS

OKLAHOMA CITY, Okla., Aug. 16.—Discrimination in prices paid for crude oil in the Stroud and Key West district of Lincoln County is charged in a complaint filed with the Corporation Commission by the J. A. Hull Co., a Delaware corporation, against the Roxana Petroleum Corp. and the Ozark Pipe Line Corp. The complain charges in substance that the Roxana at various times paid the Hull company $2 per barrel for its oil and at the same time paid other producers $2.25 a barrel for oil of the same grade.

The complaint charges that the Roxana is violating a State law by such discrimination and that the Ozark Pipe Line Corp., which it alleges is owned by the same stockholders, is seeking to evade responsibility of a common purchaser of crude oil.

CARBON PLANT FOR EASTLAND

AUSTIN, Tex., Aug. 16.—Permit for the establishment of a carbon black plant in the Pioneer oil field in Eastland County was granted by the Railroad Commission to the Phillips Petroleum Co. of Ranger, following a hearing held on the application. The company proposes to burn carbon black from waste residue gas from casing head gasoline plants in that field. The plant is to cost approximately $250,000 and the company is authorized to burn a maximum of 11,000,000 feet of residue gas per day in the operation of the plant. There was no opposition to the granting of the permit.

DEATH OF D. D. MYERS

D. D. Myers, formerly Mid-Continent district manager of the Continental Supply Co., who resigned five years ago because of ill health, and had been visiting California and the Rocky Mountains, died this week at Denver, Colo.

MORE COMPETITION THAN EVER FOR EUROPEAN OIL BUSINESS

By L. M. Fanning

NEW YORK, Aug. 19.—While general conditions in Europe are improving and there is some reflection of this in the oil business on the other side, Walter C. Teagle, president of the Standard Oil Co. (New Jersey), when seen by a representative of The Oil and Gas Journal upon his return from a combined business and pleasure trip abroad, stated that he did not look for an immediate large increase in foreign business.

"There is more competition than there ever was for European oil business," Mr. Teagle said. "Large and small foreign companies, some of them new, are in the field to get an increasing share of the business. Stocks of oil abroad are large, and on the whole I would say that the situation is similar to our domestic condition. Competition of foreign oil is also a factor. I understand that more oil is moving out of Persia and being marketed in the United Kingdom and Continental countries. A certain amount of Russian oil is finding its way into other countries of Europe. This is being sold by the Soviet largely to jobbers and marketers in relatively small lots. Russian oil to a smaller or greater extent has been marketed in outside countries, however, for over a year.

"Consumption of gasoline in the United Kingdom is increasing and probably will continue to increase with the stimulus in manufacture, importation and use of automobiles. There has been a big increase in the use of motorcycles, the smaller motor units. The removal of the import tax on automobiles is expected to increase the use of automobiles and the consumption of gasoline. The big factor in the price of gasoline in European countries is import, has and other taxes which make up a disproportionate share of the selling price to the consumer. The result is that even substantial declines in the actual price of the product mean little to the consumer who still must pay the levied duties when he buys.

"It is probable that the adoption of the Dawes reparations plan will improve the oil situation in Germany. Any stimulation of industrial activity in that country will increase the demand for petroleum products. Germany is buying less oil than she did before the war. This is due in part to the industrial situation but mainly to her inability to buy because of her demoralized currency. The reparations settlement if accomplished should change this situation materially.

"With the exception of Rumania, there is little difference in the status of oil development in foreign countries from that obtaining during the last year or so. Russia is holding to its oil administrative policy and companies formerly operating in that country are unable to proceed. The trade agreement between the Soviet representatives and Great Britain was negotiated after I left, and I do not know whether this will mean any change in the situation as regards oil.

"The situation in Rumania is very bad. It is impossible to operate in that country under the provisions of the new mining law. This matter is being taken up by the American, British and Dutch Governments in so far as it relates to the protection of their nationals, and just what foreign companies operating in Rumania will do if provisions of the law are put in effect depends to some extent on what will be accomplished by diplomatic representation. To take one feature of the law, that providing for a 75 per cent control of the management of companies by Rumanians, it can be seen that no company could afford to operate in Rumania on that basis."

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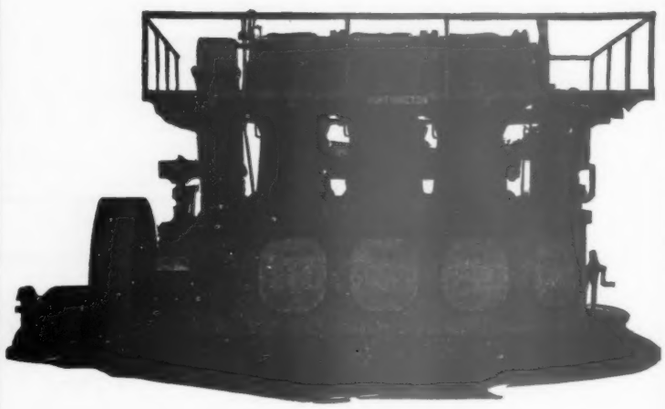

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MEXICAN FIELDS

(Continued from Page 40)

lead all other active sectors in any of the pools, the three major companies operating there bending all effotrs to drill up their remaining acreage while the production lasts.

Operations in Lot 4, Cacalilao, by La Corona Petroleum Co. follow: No. 106 is drilling in brown lime with a showing of oil at 2,180 feet; No. 115 is moving in; No. 117, drilling in blue shale at 180 feet; No. 118 cemented 8-inch in the San Felipe at 1,195 feet; No. 119 drilling in the San Felipe at 1,105 feet; No. 121 running 10-inch at 600 feet in shale. In Lot 1: No. 104 is drilling in gray lime at 1,710 feet with a 40-bbl. showing; No. 105 drilling in lime at 1,834 feet; No. 109 cemented 8-inch in the San Felipe at 1,150 feet; No. 110 drilled into salt water at 2,012 feet; No. 111, drilling in lime at 2,020 feet; No. 112, drilling in the same formation with hole full of oil at 1,815 feet; No. 116, cemented 8-inch in the San Felipe at 1,175 feet, and nine more tests in Lot 1 are moving in or in process of rigging up. International Petroleum Co.'s No. 93, Lot 8 Nacata, just west of Cacalilao proper, is drilling in white limestone with the hole full at 2,365 feet; and No. 94, same, drilling in gray shale at 1,200 feet. In Cacalilao proper, Lots 4 and 5, the company's operations follow: No. 51, drilling in shale at 700 feet; No. 56, in gray lime at 1,865 feet; No. 61, in the same formation at 1,890 feet; No. 79-A, drilled into salt water at 1,971 feet; No. 88, drilling in white lime at 2,150 feet; No. 81, is a duster at 2,454 feet; No. 82, drilling in gray lime at 2,060 feet; No. 89, cemented 10-inch at 1,200 feet in a shell; No. 97, is a dry hole at 1,952 feet; No. 98, cemented 10-inch in a shell at 1,205 feet; No. 99, drilling in gray shale at 1,050 feet; Mexican Gulf Oil Co.'s No. 27, Lot 1, cemented 8-inch at 1,201 feet in the San Felipe; No. 66, drilling in the same formation at 1,166 feet.

Mexican Sinclair Work

Mexican Sinclair Petroleum Corp.'s No. 96, Lot 2, Cacalilao, is running 10-inch in gray lime at 1,210 feet; in Lot 3, Nos. 55 and 46 are rigged; No. 65 is showing 1,000 bbls. at 1,430 feet in the San Felipe limes; No. 71 cemented 10-inch in the same formation at 1,159 feet, and No. 73 is a dry hole at 2,005 feet. Mexican Petroleum Co. has another duster in Lot 1, quitting No. 17 there at 1,840 feet. Rich Mex Oil Co.'s No. 59 is drilling in the San Felipe at 1,730 feet. Transcontinental Petroleum Co.'s operations in Lot 4 follow: Derricks are up for Nos. 44 and 118; No. 7, drilling in the lime at 2,215 feet; No. 39, drilling in the San Felipe at 1,175 feet; No. 94, drilling in the limestone at 2,050 feet; No. 99, drilling in the San Felipe at 1,585 feet; No. 111, drilling in lime at 2,050 feet; Nos. 108, 109, 114 commenced drilling, being 320, 550 and 780 feet in shale, respectively. In Lot 2, No. 103 is drilling in lime at 1,865 feet; No. 115 is drilling in the same formation at 2,220 feet and No. 117 is a derrick. In Lot 5, operations follow: No. 119, drilling in the San Felipe at 1,600 feet, showing for some 400 bbls. from 1,580 feet; No. 121, drilling at 1,480 feet in the San Felipe; No. 122, cemented 10-inch at 1,250 feet in the same formation; No. 120, drilling at 1,220 feet in the same and No. 125 is a derrick. In Paciencia, just north of Cacalilao, No. 7 is drilling in the San Felipe at 1,565 feet, showing some 50 bbls. by heads, and No. 13 there cemented 12½-inch at 900 feet in shale.

Old Sectors

In the older sectors of the Panuco Field drilling operations follow: Caltex Oil Co. has reentered the drilling field with a location, No. 6, in Lot 6 Camolote, where it is now drilling around 200 feet.

Mallory and others have gone back into the Palangana sector to drill a location known as No. 4, and some hole has already been made. La Corona Petroleum Co.'s No. 91 Salvasuchi is spudded. English Oil Co.'s No. 6 Tampuche is drilling in gray shale with limestone layers at 1,215 feet.

East Coast Oil Co.'s No. 19 Entero Grande is drilling in gray shale with some shell at 1,720 feet; and over in the Halcon sector its No. 216 has cemented 8-inch in a gray limestone at 1,304 feet. Ita Mex Oil Co.'s No. 12, Lot 25 Tamalmolon, is drilling at 3,000 feet in the gray limestone, and the drill will possibly be sent considerably deeper in an effort to develop the Tamasopa lime. Mexican Sinclair Petroleum Corp.'s No. 4 Tamaturo is drilling in gray limestone at 1,06[illegible] feet. New England Fuel Oil Co.'s No. 1 Piazzi is a salt water well at 1,960 feet. Panuco Boston Oil Co.'s No. 1, Lot 4 Isleta, cemented 8-inch in a hard shale at 1,507 feet and drilling plug. Vera Cruz Mexican Oil Co.'s No. 5 Buena Vista cemented 8-inch in a limestone at 1,465 feet. The Texas Co.'s No. 1 Cicero is drilling in hard gray shale with traces of shell at 1,770 feet; Williamson's No. 1-B, Lot 4, La Canoa, cemented 8-inch in the San Felipe at 1,514 feet.

South Fields

In the South Fields, Huasteca Petroleum Co.'s No. 46 Cerro Azul is drilling in basalt at 1,115 feet; its No. 47 is drilling in the same formation at 70[illegible] feet. Down in Tierra Blanca its No. 24-A cemented 10-inch in a brown shale at 1,763 feet; No. 29, the same in a gray shale at 1,793 feet; No. 31, drilling in shale at 155 feet. Up in Tres Hermanos, No. 8 is drilling in hard shale at 1,2[illegible] feet.

Agwi Companies' test in Laguna de Tamiahua (No. 26) is ready to spud, having made fast time rigging considering that it is a "sea-going" job, the location being almost in the center of the lake. La Corona Petroleum Co.'s No. 4-A, Lot 31 Zacamixtle, is drilling in blue shale at 2,370 feet, neither the depth nor the formation being very hopeful. The Corona is also moving in for a test on Lot 228 Amatlan. International Petroleum Co.'s No. 1 Santa Rosalia, south of the Tuxpam River, is drilling in shale at 600 feet. Mexican Eagle Oil Co.'s No. 36, Lot 131 Chinampa, is drilling in gray lime at 1,823 feet, carrying 6-inch; in No. 25, Lot 224 Amatlan it has cemented 8-inch in a sticky shale at 1,936 feet, and No. 25, Lot 226 Amatlan, is drilling in basalt at 978 feet.

Topila and Miscellaneous

Topila's activities at present are confined to its Paciencia de Aguacate sector, where drilling is progressing as follows: Credito Petrolero's No. 4, Lot 6, is drilling in the San Felipe at 2,07[illegible] feet; La Espuela Oil Co.'s No. 5, Lot 45, is drilling in gray shale at 1,215 feet; Hicks and others' No. 11, Lot 6, fishing for tools in a limestone at 2,320 feet.

At Ebano, Mexican Petroleum Co.'s No. 26 Chijol cemented 8-inch at 1,30[illegible] feet in a lime; No. 36 La Dicha is drilling in the same formation at 1,902 feet with a showing of oil; No. 38, same, drilling at 2,019 feet, also with a showing in the lime; No. 41, cemented 10-inch in lime at 1,260 feet; No. 43, drilling in hard shale at 175 feet. In Margarita No. 5 resumed and is now 205 feet in blue shale.

In the El Barco district, Mexican Gulf Oil Co.'s No. 36 cemented 8-inch at 1,30[illegible] feet in a gray lime; No. 37 finished as a dry hole at 2,400 feet; No. 62, drilling at 1,390 feet in gray limestone, and it is moving in for No. 62. In the Salinas sector, its No. 2 is drilling in gray and brown limestone at 1,662 feet; No. 5 drilling in hard shale and shell at 2,2[illegible] feet. Kern Mex Oil Fields finished No. 15 Las Palmas at 2,200 feet, a duster, and is rigging up for Nos. 6 and 7 El Barco.

In Corcovado, La Corona Petroleum Co.'s No. 1, Lot 6, is drilling in gray lime at 1,810 feet. International Petroleum Co. has also invaded the Corcovado, having a derrick up for its first test.

In Los Esteros, in the State of Tamaulipas, American International Fuel Co.'s No. 11 encountered considerable salt water at 3,385 feet, it is reported, but will case it off and drill deeper. No. 14 is drilling in shale at 545 feet, while it has a derrick up for No. 15.

In Popote, in the State of Nuevo Leon, Agwi Companies' No. 21, is drilling in gray lime at 1,942 feet.

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Spudding is usually the first operation on the drilling well. It's a simple operation after you are rigged up. With a Leidecker Machine the simple part is the rigging up and the spudder does the rest.

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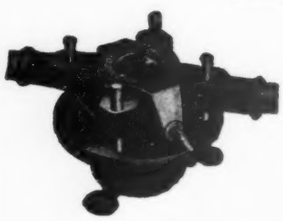

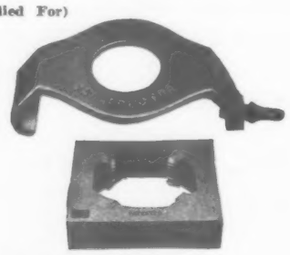

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NEW PEAK OUTPUT AWAITED AT TONKAWA

(Continued from Page 23)

5,500 bbls. on August 12. The Comar Oil Co. finished the sixth producing well at No. 1-W Laura Endicott, SW cor. NW SW, Section 35-25-1w, which started with only 780 bbls. on August 9, and increased to 3,991 bbls. on August 13, and made a total of 4,590 bbls. on August 14. Sand was drilled from 3,950-77 feet.

Record of Wells

The Comar Oil Co.'s No. 1-W E. C. Endicott, SE cor. NE SE, Section 34-25-1w, started with a flow of 900 bbls. on August 10, from sand at 3,980-99 feet. It gauged 6,752 bbls. on August 13. The Pennok Oil Co. finished No. 4-D Endicott, NE cor. SE SE, same section, tanking only 200 bbls. on August 10, from sand at 4,013-16 feet, but making 1,800 bbls. on August 11. The Gypsy Oil Co.'s No. 81 Clark, NW cor. Section 2-24-1w, was finished as a 3,700-bbl. well on August 11, and made 4,700 bbls. on August 14, from sand at 4,132-46 feet.

To the northeast, the Comar Oil Co. abandoned No. 4 Koffenbrink, C NE SW, Section 36-25-1w, as dry after passing through the Slick sand and finding another sand dry at 4,502-16 feet, total depth. The Blackwell Oil & Gas Co. is finding little encouragement in No. 4-C Ruzek, NE cor. NW, Section 3-24-1w, on the southwest. It was drilling in black lime at 4,167 feet. To the south the Healdton Oil & Gas Co. was drilling at 4,205 feet in shale, in No. 13-B Rence, SW cor. NE NW, Section 11-24-1w. The Comar Oil Co.'s No. 1 McCutcheon, NW cor. SW, Section 11-24-1w, was running low also, having shut down on account of pipe trouble at 4,195 feet.

It is the general opinion of geologists and production experts in the Tonkawa Field that the axis of the deep sand structure will be found to run northwest and southeast and that it will be slightly north of the axis of the structural formations found in the shallower producing horizons. Because of this condition acreage to the northwest and north of the field as outlined by the shallower sands is now considered a fair gamble for production in the lower horizon. Several deals have been completed recently affecting acreage in this territory and a number of new locations are scheduled to be announced soon.

List of Operations

Following is the record of the drilling wells, rigs and locations in the Tonkawa Field:

Section 2-24-1w—Northeast quarter, Comar Oil Co.'s No. 1 Gaume, NW cor. drilling at 3,340 feet. Northwest quarter, Gypsy Oil Co.'s No. 82 Clark, drilling at 4,045 feet; No. 83, drilling at 3,605 feet; No. 84, drilling at 3,420 feet; No. 85, drilling at 3,475 feet; No. 86, location; No. 87, location; No. 17, old well drilling deper.

Section 3-24-1w—Northwest quarter, Blackwell Oil & Gas Co.'s No. 4-C Ruzek, drilling at 4,167 feet. Northeast quarter, Comar Oil Co.'s No. 2-W Carmichael, old well drilling deeper, building rig at 2,600 feet; No. 6-W, drilling at 3,485 feet; No. 9-W, building rig; No. 11-W, bailing at 3,356 feet.

Section 34-25-1w—Southeast quarter, north half, Comar Oil Co.'s No. 2-W E. C. Endicott, drilling at 3,302 feet; No. 3-W, drilling at 3,327 feet; No. 4-W, drilling at 3,361 feet; No. 5-W, drilling at 3,665 feet; No. 6-W, top black lime at 3,995 feet, drilling at 4,000 feet; No. 7-W, drilling at 3,329 feet; No. 8-W, rebuilding rig. Southeast quarter, south half, Pennok Oil Co.'s No. 1-D Endicott, rebuilding rig, 4,085 feet; No. 2-D, rebuilding rig, 3,350 feet; No. 3-D, drilling at 2,435 feet; No. 5-D, drilling at 3,750 feet; No. 6-D, drilling at 2,505 feet; No. 8-D, drilling at 3,325 feet. Northwest quarter, Comar Oil Co.'s No. 1-W Beverlin, drilling at 4,040 feet; No. 4-W, building rig. Northeast quarter, Amerada Petroleum Corp.'s No. 34 Goltry, drilling at 2,480 feet; No. 33, drilling at 3,500 feet; Nos. 35, 36 and 37, building rigs. Northeast quarter, Phillips Petroleum Co.'s No. 1 McDaniels, old hole drilling deeper, rigging up at 2,000 feet; No. 5, location. Northeast quarter, Blackwell Oil & Gas Co.'s No. 4-C McDaniels, old well drilling deeper; Nos. 3-A and 7-A, locations. Southwest quarter, Wentz Oil Corp.'s No. 18 McKee, drilling at 4,122 feet; No. 29, drilling at 3,100 feet; No. 46, drilling at 2,650 feet.

Section 35-25-1w—Southeast quarter, Comar Oil Co.'s No. 1 Ogg, drilling at 3,330 feet. Northwest quarter, Carter Oil Co.'s No. 11 Stewart, building rig. Southwest quarter, north half, Comar Oil Co.'s No. 2-W Laura Endicott, building rig; No. 5-W, drilling at 3,337 feet; No. 7-W, drilling at 3,108 feet. Southwest quarter, south half, T. B. Slick and Comar Oil Co.'s No. 2-E Endicott, drilling at 3,535 feet; No. 3-E, drilling at 3,202 feet; No. 4-E, drilling at 2,850 feet; No. 5-E drilling at 3,988 feet; No. 6-E drilling at 3,254 feet; No. 7-E, drilling at 3,240 feet; No. 8-E, drilling at 3,144 feet.

Logs of Deep Wells

Following as the logs of three of the Tonkawa deep sand wells, showing the formations immediately above the Slick sand.

T. B. Slick's No. 1-A Endicott, SW cor. Section 35-25-1w.

	Feet.
Sand	2,491- 98
Sand	2,498-2,506
Shale	2,506- 40
Lime	2,540- 65
Shale	2,565-2,720
Sand (400 feet water)	2,720- 38
Shale	2,738-3,055
Lime	3,055- 65
Sand (water)	3,065- 82
Shale (1,000 feet water)	3,082-3,100
Sand	3,100- 10
Lime	3,110- 15
Sandy lime	3,115- 35
Lime	3,135-3,222
Shale	3,222- 70
Sand (water)	3,270-3,315
Shale	3,315- 34
Lime	3,334-3,412
Slate	3,412-3,503
Lime	3,503-3,602
Shale	3,602- 40
Lime (show oil)	3,640- 45
Shale	3,645- 68
Lime	3,668-3,724
Shale	3,724- 42
Lime	3,742- 75
Shale	3,775-3,855
Sandy shale	3,855- 85
Lime	3,885- 96
Shale (s. l. m.)	3,896-3,903
Red rock	3,903- 94
Sandy shale	3,994- 45
Sand	3,945- 46
Sandy shale	3,946- 75
Shale	3,975-4,005
White lime	4,005- 10
Sand	4,055- 65
Sand, oil (total depth)	4,065- 70

Blackwell Oil & Gas Co.'s No. 1-C McDaniels, SW cor. SE NE, Section 34-25-1w.

Black lime	3,250- 60
Slate	3,333- 65
Sand	3,345- 73
Slate	3,373-3,390
Lime	3,390- 95
Slate	3,395- 98
Lime	3,398-3,400
Slate	3,400- 05
Lime	3,405-3,515
Slate	3,515- 33
Lime	3,533- 53
Slate	3,553- 55
Lime	3,555- 65
Slate	3,565- 70
Lime	3,570- 75
Slate	3,575- 95
Lime	3,595-3,605
Lime	3,605- 30
Slate	3,630- 38
Slate	3,638- 39
Slate	3,639-3,740
Lime	3,745- 55
Slate	3,755- 90
Lime	3,790- 95
Slate	3,795-3,895
Red rock	3,895-3,910
Slate	3,910- 40
Lime	3,940- 70
Oil, total depth	3,976

Comar Oil Co.'s No. 1-W L. Endicott, SW cor. NW SW, Section 35-25-1w.

Gumbo	3,545- 60
Lime	3,560-3,620
Slate	3,620- 34
Lime	3,634- 50
Slate	3,650- 55
Lime	3,655- 66
Slate	3,666- 87
Lime	3,687- 94
Slate	3,694-3,725
Slate lime shells	3,725- 50
Slate	3,750- 67
Sandy lime	3,767- 75
Slate	3,775-3,827
Lime shell	3,827- 30
Slate	3,830- 35
Red rock	3,835- 45
Red rock	3,845- 77
Slate	3,865-3,893
White lime	3,893-3,950
Sand	3,950- 77
Sand oil	

TROOPS TO TAMPICO STRIKE

TAMPICO, Mex., Aug. 18.—Huasteca Petroleum terminal and refinery strike at this place was neutralized today by appearance of Federal troops to protect the property.

MECHANICAL TRANSMISSION OF POWER THROUGH CHAINS

By Charles R. Weiss
Chief Engineer Ewart Plant, Link-Belt Co., Indianapolis, Ind.

Obtaining a high degree of efficiency with drive chains has been a constant problem to the oil well drilling industry. Recognizing the importance of power transmission chain drives to the industry in general, Capt. J. F. Lucey, the national chairman of the committee on standardization of rotary drilling equipment of the American Petroleum Institute, has requested the writer to prepare two articles; one covering "Chains" and the other covering "Sprockets." This is the first of the series of two: The second article on "Sprockets" will follow.

Back in the days when cable tool or rotary drilling was an "infant industry" and wells were commonly of a shallow depth, the drive chains were of the detachable malleable iron type known as No. 103 and No. 124. These chains possessed a pitch of 3.075 inches and 4.063 inches, respectively.

However, the constantly increasing depth of wells and the high speed at which the wells were drilled, called for heavier duty, more ruggedly built chain and this demand was met by replacing the inadequate malleable iron chain with steel roller chains, the latter having a much greater strength and more scientific design. These steel roller chains were made on the same pitch as the former malleable chain, that they might operate on the old type, 103 and 124 sprockets.

The coordination of the first three elements named belongs to the chain manufacturer. Obviously, the chain maker must design his product to obtain a proper strength relationship of the component parts. To obtain the strength relationship, the materials must be properly selected and carefully heat-treated. A chain so designed and fabricated will always break under test at approximately the same strength.

The pounds pull in a chain, to get the required amount of horsepower, should be much lower than the breaking strength of the chain. The breaking strength, divided by the pulling load, is termed the "safety factor." As chain speeds are increased, the safety factor should also be increased. For the continuous transmission of power, the safety factors should be more liberal in the drives which are to be frequently operated. Every chain manufacturer is constantly striving to bring about and maintain such conditions.

Sprocket wheels with but few teeth are more severe on a chain than those with larger numbers of teeth. All things being equal, therefore, a chain running on a very small wheel will not last as long nor give the same degree of efficiency as a chain running comparatively large wheels.

Care of the chain by the user is divided into two factors: Manner in which it is applied and the care given to the mechanism during operation. The first principle of chain installation is the assurance that the sprocket wheels are in line on the shafts and that the shafts themselves are parallel and level with regard to each other. The application of drive chains where the spockets are not exactly in line on the shaft will tend to a side pull which makes for greater tooth strain, excessive wear on both chain and sprocket and a false consumption of power. Shafts not accurately leveled, or which are out of parallel, will make for similar conditions—excessive wear and possibly delay being naturally resultant.

In like measure, the construction should be as rigid as conditions will permit. Weak or inadequate construction will result in ultimate breakdown and expensive delays.

With regard to care afforded the chain during operation, that is largely a matter of lubrication. It is trite to say that where steel meets steel or where friction occurs, there will be wear. The heavy, high-speed load imposed on power transmission chains are carried through many component metal parts. Naturally, if the lubircation is insufficient, there is a tendency towards galling, which results in rapid wear and consequent stretch.

Drive chains should keep clean at all times and should be lubricated with oil, comparable to a heavy engine grade. Particularly is it necessary to insure the complete lubrication of each joint.

As the endurance of the chain depends largely on the size of the sprockets used, a longer life can be obtained from larger sprockets. Where possible, a sprocket containing but few teeth should be avoided. Furthermore, longer chain life and longer sprocket life can be obtained by the use of tooth forms of an improved type. But this is a separate subject to be treated separately in a treatise on an improved design of tooth forms which promises to be revolutionary in the degree of efficiency obtained by power transmission equipment on oil drilling rigs.

The sprocket tooth forms to be discussed are, however, more a matter of evolution than revolution. Ever since the early days of the chain business and almost since the inception of chain practice, the teeth of sprocket wheels have been shaped either by rule-of-thumb or according to erroneous ideas regarding chain action. The latter has prevailed so that the sprocket tooth contour is something similar to a gear tooth, and although this idea is now many years old, sprocket drive wheels are still being built in accordance with the latter—that the chain links always lie down at the root circle at the base of the tooth and do not ride upon the flanks of the teeth; that to accommodate the shifting of a stretched chain on the root circle, clearance is needed between the teeth; that the larger the wheel the greater the clearance and the thinner the teeth. The eminent need of continuous operation and more economical equipment has resulted in a distinctly unique tooth form for drive wheels.

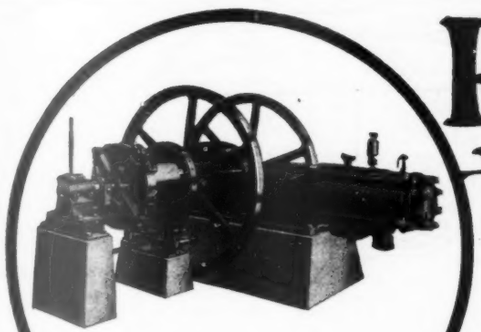
INDIANA CO. OFFICIALS PROMISE COOPERATION

CHICAGO, Aug. 16.—The Standard Oil Co. (Ind.) states that the company will cooperate to the fullest extent with the attorney general of Missouri in his hearing before the Supreme Court so long as the hearing is fair and imparital. The officials of the company have accepted the subpoenas and will leave Monday night to be present when the hearing at Jefferson City, Mo., is resumed on Wednesday, August 20. All files and accounts requested will be supplied by the company.

The officials that have been subpoenaed and will leave as stated are W. M. Burton, president; Allen Jackson, vice president, in charge of sales; E. G. Seuhert, vice president and treasurer; R. E. Clark, general auditor; Edgar Bogardus, assistant to the vice president and with these will attend John D. Clark, vice president, and assistant to the chairman of the board; L. L. Stephens, general attorney, and George B. Cook, director of public relations. They go prepared to give Attorney General Barrett all possible information convinced that the company has done nothing that should cause it to fear the most complete publicity.

SINCLAIR CO. DENIES SHIPMENTS

The Sinclair interests deny that oil from the Salt Creek Field is being sent to Houston, Tex., for shipment to Philadelphia.



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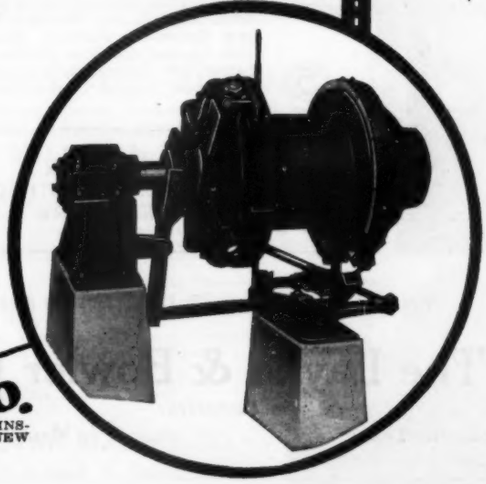
VALVELESS GAS ENGINES

With a FRANKLIN on the job "pulling jobs," "Swabbing" and "finishing jobs" need no longer be a cause of much worry and cussing by you.

In the face of an overload to almost stalling the FRANKLIN will continue to pull and if the clutch is released it will "pick up" rather than stop.

Type "S" Reversible Clutches



steady prolonged service and lower lubrication and repair bills are a few of the advantages that go along with the power and efficiency of the FRANKLIN.

If you want an engine that knows the real meaning of work investigate the FRANKLIN

FRANKLIN VALVELESS ENGINE CO.

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rigs. Northeast quarter, Phillips Petroleum Co.'s No. 1 McDaniels. old hole

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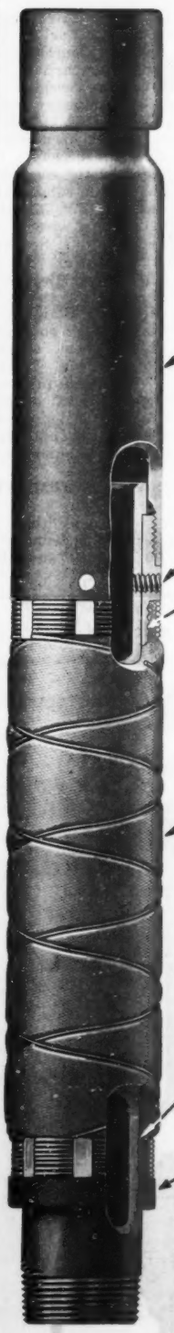
Unsurpassed for Use in Open Holes



THE LAYNE

Patent

ALL CANVAS

PIN PACKER

1

Packer Barrel.

2

Brass Pins, which prevent the Packer Barrel from being pushed down while the Packer is being lowered in the hole.

3

Canvas Packing is the best grade of close woven duck and is wrapped spirally for a distance of six feet over the Packer Stem, or wrapped longer on special order.

4

Shallow Grooves directly under retaining wires prevent the ends of the canvas packing from slipping.

5

Steel Ring, which protects and retains the end of the Canvas Packing, and makes this point absolutely leak proof.

This Packer can be set with the Barrel End up, or with the Stem End up, with equal results.

If the Packer is to be set in a rough or crooked hole, or to a great depth, we recommend, and will add, additional pins when instructed.

This Packer can be set very successfully on the same string of pipe or liner with any of our Ratchet Packers, or our Screw-off Packers, which enables you to use the Pin Packer any place below the Casing, with the Ratchet or Screw-off Packer in the Casing.

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Write or wire us your Packer or Screen Needs

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Factories:

Houston, Texas Memphis, Tenn.

OIL POSSIBILITIES IN WESTERN WASHINGTON

(Continued from Page 32)

or more thick, the Oligocene sediments are 7,000 feet thick on an average and the exposed Eocene sediments are 7,000 feet thick, a total of 20,000 feet.

The Hoh Formation

Earlier workers have classified the Hoh formation of Clallam County, as Jurassic or Cretaceous in age although not positive on that point. Some of the best oil and gas indications in western Washington are found in the Hoh formation so it was important to place its age. This has been done and the Hoh formation is now classed as undifferentiated Tertiary consisting of upper Eocene, of Oligocene, and of Miocene sediments. The main surface oil showings in the Hoh come near the top of the Eocene beds or base of the Oligocene. This is important in that the Oligocene and the Eocene beds are more numerous than the folds in Miocene beds.

Unconformity

There is a marked erosional unconformity between the Upper Miocene and the lower beds. This unconformity affects studies of geology in Grays Harbor County particularly and makes geological deductions difficult there. In places the Upper Miocene beds rest on Lower Miocene beds, on Oligocene, or at places they may rest on Eocene beds. There is very little difference in dips on the anticlines between the Upper Miocene beds and the lower beds but regional studies show the unconformity.

Geology—Structure

There are a number of well defined anticlines starting in beds of Miocene, Oligocene, and Eocene ages. There are domes on these that cover from 4 to 10 sections of favorable land. The folds are nearly all asymmetrical, that is with one side steeper than the other. The dips range from 10 degrees to as high as 70 degrees. See sketch of average fold.

Numerous sands ranging from 20 to 150 feet thick are found in this area. Wells can be drilled on the domes and anticlines to contact such sands at depths ranging from 1,000 to 4,000 feet.

There are numerous thick bodies of shades rich in diatoms and in foraminiferal material, the fossils are of microscopic size. Such shale beds could have been the source of oil.

The next condition is that these folds and beds are not adversely changed or altered by intrusive or other igneous rocks, and are not cut by faults of sufficient size to allow the escape of oil or gas.

Igneous Rocks

The general impression of western Washington seems to be that the area is cut by numerous dikes, and that there is a preponderance of basalt and lava tuffs in the sediments. These ideas must be changed. There are a few dikes and sills but no more than are found in other oil producing States like Wyoming, Colorado, Montana or California. Within the area considered favorable for oil and gas, not over six dikes have been found. As regards flow rocks such as basalts and basaltic tuffs, such rocks are present but instead of being the predominating type are in the minority. In some 20,000 feet of sedimentary beds the proportion of basalt and tuffs to the total sediments is about 10 per cent of the total or 2,000 feet, only 500 of this being basalt scattered through quite a range of beds. The basalts occur as lava flows. These flows overlie and underlie good sandstones and shales rich in organic life. The presence of such flows which are 20 to 100 feet thick, are not detrimental to the finding of oil. The basalt will drill hard but cable tools make good progress in it. In most places drilling will contact comparatively few hard beds. The lava ash and tuffs are readily drilled and may in themselves prove good reservoirs for oil and gas where they are porus.

The fact that the basalt flows are thin is one of the most important facts discovered in western Washington and completely changes many of the earlier geological ideas.

Faulting

Faulting is found in Washington but the faulting is of the type found in the California and in the Wyoming fields. Displacements of 100 to 200 feet are not unusual but in folds arched 5,000 feet

WESTERN WASHINGTON

this means very little so far as affecting the accumulation of oil. In some cases such faulting may even prove beneficial in allowing oil to migrate from deeper beds to higher ones on the fold.

Hydrostatic Conditions

This discussion would not be complete without a discussion of water pressure. All the tests drilled on the flanks of folds have shown water with good pressure. It is expected that heavy pressures would be encountered as the beds from which oil and gas may be expected outcrop in a wet country and at points higher in elevation than the drilling sites. As a consequence hydrostatic head would be expected. The wells drilled on the flanks of folds or in the synclines bear out this theory.

OVERPRODUCTION IS PRESSING PROBLEM

(Continued from Page 20)

oil business has done more to rob itself of the profits to which it was justly entitled, than any outside industry could ever do it.

Through overrefining and the piling up of huge stocks of refined products, the refining end of the oil business has done more to rob itself of the profits to which it was justly entitled than all of the motorists in the country would ever try to do to it.

The all-too-frequent fluctuations in the market price of refined products, largely traceable to the lack of experience, organization and capital of the smaller distributing units, have done more to create a general distrust of the oil industry than high prices ever could have done—if they had been uniform.

The producer, the refiner and the marketer have brought about the condition that is so costly to each of them—and obviously the industry must solve its own problem.

The only thing fundamentally wrong with the entire industry today is that we have a few hundred million barrels too much crude oil above ground, and about a billion gallons too much gasoline in storage.

Aside from these two facts there is probably not another industry in the United States that is in better physical shape today than the oil industry.

Highly Efficient

Aside from producing too much crude oil, the producing end of the oil business has been developed to a point far beyond that reached by any other mining industry. And aside from its speculative nature, the finding and producing of crude oil is the very highest type of obtaining nature's resources.

Probably no other manufacturing industry has been developed that turns raw materials into finished products more efficiently than our refineries, cracking plants and gasoline plants.

And certainly, even the absolute necessities of life are not more widely distributed, and from a service standpoint more acceptably distributed, than are gasoline and lubricating oil.

As the matter stands today, the industry has it wholly and entirely within its own hands to straighten out its own troubles.

The only point from which to start is to make less gasoline each day than we use, and produce less crude than we refine, until such time as our stocks of crude and refined get down to the point that they are not a menace to the industry. This course, simple as it is and effective as it would be, is an "individual problem" with each producer and refiner.

The only time that the oil men of this country ever functioned as a unit was during the late war—and short of the bringing into being of some kind of commission, made up practically in its entirety of oil men, that will have both the moral force and the governmentally derived power to bring about curtailment of production during times like the present, and thereby "save the industry from itself," the whole problem of curtailment must rest with the individual producer and the individual refiner.

But of this we may be certain—that until the production of crude oil is held within the point at which both producers and refiners break under unwieldly surplus stocks and filling station prices go to pieces, we will have trouble from both within and without the industry. And the outside trouble will be the most dangerous.

With less crude oil we will need less "explaining" to the public—the producer will have a more stable market for his crude—the refiner for his refined products—and the little misguided marketer will neither start "price wars" nor try to recoup his losses by shooting his prices to the other extreme after the war is over—if he lives through it.

Overhanging Stocks

The present situation is critical, and the future even more so, if present stocks of both crude and refined are not shortly and very substantially reduced. At the present rate of producing and refining we will go into the winter with stocks that will make 1925 a repetition of the four preceding years.

Hoping that present fields will decline rapidly—and that very little new production will be found—and that the summer will wipe out surplus stocks, have all failed in 1924—just as they failed in 1923.

Curtailment is an unpalatable but sure cure for overproduction. In its producing and refining the oil industry is essentially competitive, uncohesive and individualistic—and when it comes to curtailment it is obvious that the act of curtailment must be an individual matter with each producer and each refiner.

Curtailment is not a law—it is only a moral responsibility. The only law that is operative is the law of supply and demand—and the only penalty it inflicts is to take a part or all of the profits from those who violate it.

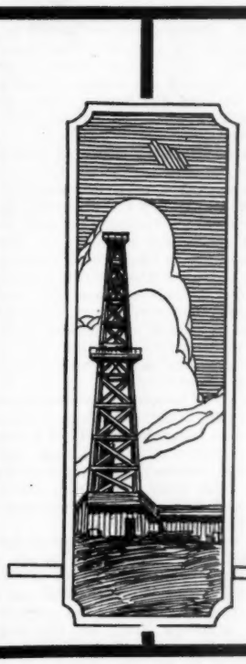
GUSHERS AT GROSNY BUT WITHOUT STORAGE

The official Russian estimate for the production of the current year, which ends in the autumn, is a total for all Russia of from 370,000,000 to 375,000,000 poods, or about three-fourths of the pre-war quantity. For the next year the estimate is for 415,000,000 poods. The current year's estimate, the London Oil News thinks, is likely to come within a reasonable margin of the truth, but as regards the next year would like to see the data on which the estimate is founded before expressing an opinion upon it. There are two forces at work in the Russian production industry. One is a sort of inertia characterizing the Baku district. In spite of every effort to increase production there, the monthly total remains obstinately at almost the same level. It is true that there is a slight upward movement, but this upward movement is very small in comparison with the efforts made to increase production in this field.

The other force is of the contrary kind. It exhibits itself in the Grosny Field, which is shown to be getting out of hand. In order to keep up production there intensive development was indulged in, with the result that, according to an independent observer, four new gushers came in within a few days, giving a total of 200,000 poods daily. It is pointed out that flowing wells at Grosny commonly produce for two or three years, so that this new group of gushers is estimated to give 50,000,000 poods. The only thing that does not exist and has not been foreseen and provided is facilities for treating the oil or for getting it away. The refineries are handling as much oil as can be dispatched to other parts. Great open-air storage ambars of crude oil await treatment or removal. These "oil lakes" are not only wasting the valuable lighter constituents of the crude under the hot Caucasian sun, but they are a considerable source of fire risk. The oil authorities and the municipal local administration are naturally quarreling about the position. Either the Russian Oil Department should cut down drilling activity at Grosny, says the London paper, or they should provide the means of dealing with the oil obtained.

SPENGLER CORE DRILLING CO.

Owns the basic patent on core drills now used in the oil fields known as the Ameling Patent issued July 11, 1911, No. 997358.



Patents of recent issue are merely what is known as "improvement patents" and are infringements on our basic patent.

Claim 1 of our basic patent No. 997358 reads, as follows:

"1. A rotatory core drill comprising an outer barrel having an annular cutting bit on the end thereof and an inner core barrel having an annular bit on the end thereof, the cutting end of said inner bit being extended ahead of the cutting end of said outer bit and said outer bit and inner barrels being fixed against endwise movement independently of each other."

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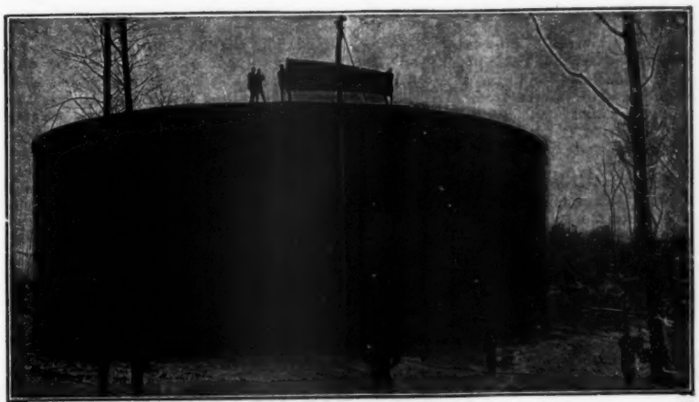

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SULLIVAN TURBINAIR HOIST

(Trade Mark)

These light (285 lb.) portable compressed air hoists may be set up anywhere. They will lift 2000 lb. at 110 ft. per minute on 50-75 lb. air pressure (¾-in. hose.) The drum holds 500 ft. of 5-16 wire rope.

These pictures show a Turbinair Hoist handling 5x20 plates, weighing 2000 lb. each, in building 18 55,000-barrel storage tanks for the Standard Oil Company of New York, at Tappan, New York.

The Warren City Tank and Boiler Company, the contractor, states that the use of these hoists, instead of the old method, a team of horses and an "A" frame, has largely reduced the construction time.

The Warren City Company uses Turbinair Hoists on all its field work of this sort.

Ask for Bulletin 1576-C

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Plant Operators Meet in Breckenridge

Regional Conference in Texas Field Most Successful Yet Held By Natural Gasoline Association. Practical Papers Feature

By Dan F. Dugan

One hundred and ninety-five gasoline plant operators registered in the municipal building, Breckenridge, Texas, for the fourth regional plant operators' meeting to be held under the auspices of the Association of Natural Gasoline Manufacturers, on August 13. In many respects this meeting was the best yet held. The sessions were intensely interesting, and the men declared they had received many beneficial ideas from the talks and technical discussions.

F. G. Yonkers of Ranger, general superintendent of Chestnut & Smith Corp., presided at all the sessions. The work of A. V. Bourque, secretary of the National Association, which made possible this meeting at Breckenridge, was complimented at the outset and in turn expressed hearty appreciation for the attendance. The meeting was characterized by the practical ideas exchanged during its sessions.

Dan Newton, gasoline manufacturer of California, was present at the morning session and upon invitation from Mr. Yonkers spoke briefly on "Kerosene Distillate as an Absorbing Agent." He said he has had remarkable success with this agent, perfecting its usage through a series of experiments conducted at several of his California plants. One feature he emphasized in the use of this agent is that extremely low temperatures may be obtained.

"I know by actual experience," he said "that kerosene distillate will give the maximum results when properly used. The richness of the gas run should be no handicap, so long as the temperatures are kept down."

G. G. Oberfell, prominent gasoline plant engineer of Tulsa, spoke on absorbing mediums, following Mr. Newton's remarks. He differed from Mr. Newton on some claims made for kerosene distillate declaring it depends largely on surroundings and conditions what success one will have.

Waste Prevention

G. P. Crutchfield, of the Roeser & Pentdleton Corp., gave an interesting talk on "The Prevention of Leaks and Waste." "The time to stop a leak, is when the work is first done," he said. "There are certain precautions to be taken and a certain amount of care to be exercised at the making of every pipe joint and the tightening of every flange.

"The standard pipe thread was formulated by Robert Briggs, about 1862, and since then adopted as the American standard. Certain features should be remembered when analyzing the cause of pipe leaks. The threads have an angle of 60 degrees and are slightly rounded off at the top and the bottom. The pitch and length of the thread depend upon the pipe size.

"As a result of the design of threading machinery, only a part of the total length of the standard is perfect. It should be noted that there are three distinct parts to the completed thread. Starting from the end there will be found a perfect thread varying in length with the size of the pipe. Next will be found two threads which, due to lack of stock are imperfect on top but perfect on the bottom. Then the last part, or shoulder, will be found to consist of three or four threads which are imperfect in shape and untrue to taper.

"It is these last few imperfect threads that are the cause of a big percentage of poor and leaky joints. If it is necessary to screw a joint upon these poorly formed and incorrectly tapered threads to make a solid joint, the strain and distortion and false sense of tightness are certain to cause trouble later.

"The cause of these poor pipe joints is generally the result of a poorly adjusted stock and die. This may be remedied by readjusting the dial. on the Beaver type, by correcting the calibration on the adjusting dial; on the Toledo type, by a few turns of the die head befor starting to cut the thread. A pipe fitter who wants to do good work and doesn't care to be haunted by a fear of leaks will cut his threads to make up tightly without the last four or five imperfect threads. It might be mentioned here that proper attention to the condition of the dies will repay for the trouble taken many times.

"Another small detail that causes trouble oftener than is commonly supposed is the lack of care in cleaning the threads before screwing them into a joint. Dirt, rust or steel cuttings, when forced in with the threads will score and tear the threads and result in making the joint tight when in reality the threads have not gone far enough to seal the joint perfectly.

"A good pipe joint lubricant is of assistance in screwing the pipe the proper distance to obtain a pipe joint. To some extent it may help to seal minute imperfections. If it contains graphite or white lead it will certainly preserve the joints and render the breaking out of fittings far easier. Having recently had occasion to break out a number of fittings that were put up with shellac, I am not overly enthusiastic about its use for pipe joints. However, gasoline tends to harden it and for this reason it is sometimes recommended for gasoline lines.

"The proper use of fittings should be considered in this connection. There are in common use two types of material for the manufacture of fittings, cast iron and malleable iron. Because of their lower cost, cast iron fittings are generally used wherever suitable. Low pressures, low temperatures, little strain or vibrations are the requirements for satisfactory service from cast iron fittings. High or varying temperatures, strain vibration, all of these call for malleable fittings. All fittings should be carefully selected for the service for which they are to be used. Selecting fittings with a 40 to 50 per cent greater strength than the service requires is a good trouble insurance. Careful examination for cracks, sand holes and other imperfections should of course be made. Be certain that you are not cutting threads that are too deep and long. This practice is liable to result in a leak caused by the pipe jamming into the interior of the fitting. With gates, be particularly sure that the ends of the pipe nipples are not wedged against the seat of the valve.

"The valve is a very important part of the pipe job and deserves particular care. One of the greatest troubles with valves is their tendency to leak around the stem and the most common cause of these leaks is a bent stem. It is almost impossible to keep a valve with a bent stem packed and a great deal of trouble may be prevented by insisting upon careful handling of such material. If the gate is of a type which has a gasket under the hood, the gasket should be examined and if found of a material that will be attacked by oil or gasoline it should be replaced, preferably with a good asbestos packing. An examination of the material used for packing the stem should be made at the time time. Before placing a valve in operation be sure the seats are clean. Grit on the seat may score the wedges or seat and a leaky valve will result.

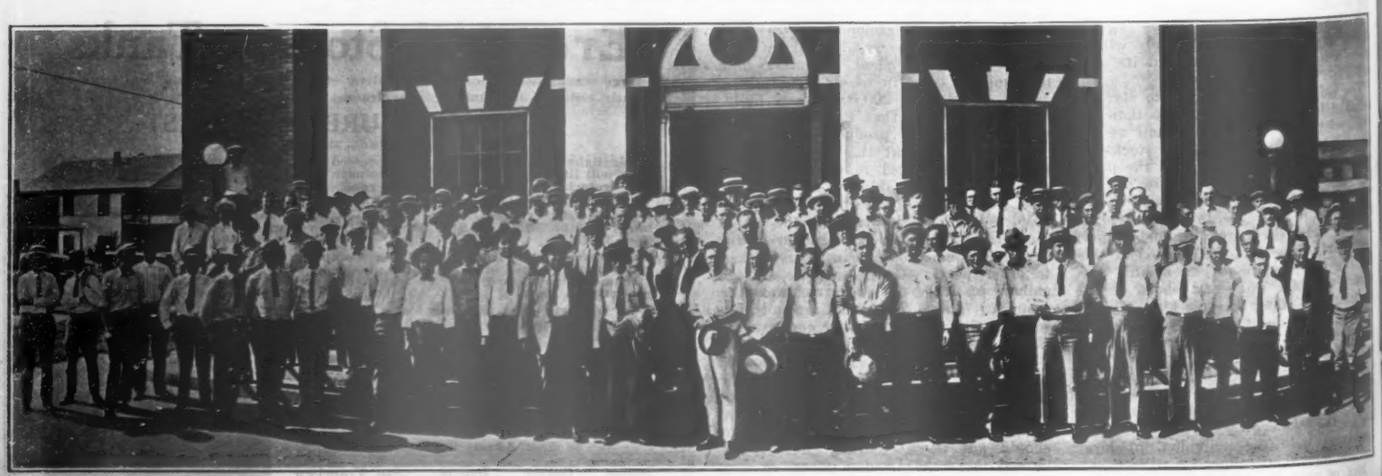
"Now a suggestion or two about gaskets. There are still some men who use a solid gasket, that is one which is the same size as the flange and extends beyond the bolt circle. This is not the best practice. It has been found both by experimental test and actual service that a ring gasket, or one that extends only from the flange opening to the inside of the bolts is far better. It will stand more pressure and make a tighter joint under adverse conditions. Gaskets on tanks or manholes are often a source of leaks. If a good gasket of fairly thick material fails to hold, clean the flange carefully until it is bright all over, then apply a thin paste of iron cement evenly over the prepared surface. Immediately place the gasket and cover in place and draw the cover down moderately tight. After a couple of hours go over all the nuts and tighten them again.

"Often in spite of all precaution leaks will appear. Since shut downs for repairs are almost impossible, it is common practice to apply a collar leak clamp, or a pipe joint clamp. We have some pipe joint clamps that have been in constant service for two years and have never required any attention.

"Waste caused by leaks around pipes are not the only ones present in a gasoline plant. I shall suggest a few with a possible remedy for them. Very often machinery arrives from the factory with poorly designed gaskets. An inspection and replacement of these will help keep your lubricating oil in the machine where it is needed and off of the floor where it is decidedly not wanted. If trouble is experienced by oil traveling out of the shafts to be thrown about by the fly wheels, a thin disc as large as possible should be clamped around the shaft inside the oil housing to act as a miniature fly wheel and throw the oil from the shaft before it gets outside of the housing. Some engines lubricated by the splash system are equipped with oil gauges that are too short. While the engine is running they are satisfactory but when the machine stops the oil settles and raises the level to the overflowing point. Evidently the remedy here is a remodeled gauge glass. A clean, well kept floor is a sure sign of lubricating oil economy and also serves as an incentive for tracing down and stopping machinery leaks.

(Continued on Page 118)

BIG ATTENDANCE AT BRECKENRIDGE SESSION



—Photograph by Walton Studio.

Group of operators attending fourth regional meeting for plant operators, held at Breckenridge, Tex., August 13, under auspices of the Association of Natural Gasoline Manufacturers

They Played with Diamonds

YET their father decided to sell his apparently worthless West African farm and go "some place where he could make a living."

The new owner investigated and learned that his farm was in the World's richest diamond field.

It certainly paid him to "look over" *his own* property!

Every issue of *your* Oil and Gas Journal contains "business gems."

Be sure to examine them before you close your Oil and Gas Journal. It is in your possession NOW—so read all of the Classified Advertisements at once.

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"Biggest in America"

KANSAS FIELDS

(Continued from Page 42)

Gorden has made a location for No. 1 Eastman, NE SW SE, Section 6-31-6. The Southwestern Petroleum Co.'s No. 5 Eastman, NE cor. Section 6-31-6, got sand at 2,820-60 feet and a 4,000,000-foot gas production, and sand at 2,860-80 feet and a 285-bbl. initial oil production. The same company's No. 6 Eastman, NW cor. NE, Section 6-31-6, got 15,000,000 feet of gas at 2,832-67 feet and a 300-bbl. production at 2,867-68 feet. No. 8 Eastman is a rig in the SW cor. SE SE, Section 6. Shawver & Sutter's No. 1 Eastman, NE cor. NW SE, Section 6-31-6 got 1,000,000 feet of gas at 2,853-82 feet and a 50-bbl. production at 2,882-87 feet.

J. A. Hull's No. 7 Dilfelter, NW cor. SW NW SE, Section 24-32-4, Cowley County, which was shot with 160 quarts in sand at 3,003-35 feet and made 150 bbls. the first day was not regarded as a completion.

The Roxana Petroleum Corp. made a location for No. 1 Spruen, SE cor. NW SE, Section 9-33-3. The Alcorn Oil Co.'s No. 1 Graham, C NE NE NE, Section 9-33-3, had not been completed. It was good for 33 bbls. an hour as it stood. The same company has a rig up for No. 2 Graham, SE cor. NE NE, Section 9, and for No. 1 Wright, NW cor. Section 10 and No. 2 Wright, SW cor. NW NW, Section 10. The Roxana Petroleum Corp has rigs up for No. 1 Bowen, SW cor. NW, Section 10 and for No. 1 Spruen, NW cor. SW, Section 10.

In the Rainbow Bend Pool which is producing over 6,500 bbls. a day, the Waite Phillips Co. and others' No. 2 Wertman, SE cor. NW SE, Section 20-33-3, was last reported making 710 bbls. from sand at 3,188-3,216 feet; No. 3 Wertman, SW cor. SE NW, Section 20, 325 bbls. at 3,215-42 feet; No. 3 Glasgow, SE cor. NE SW, Section 20, 1,390 bbls. at 3,196-3,231 feet; No. 3 Glasgow, NW cor. NE SW, Section 20, 600 bbls. at 3,199-3,229 feet.

Shawver & Elwell's No. 1 Band, NW cor. NE NE, Section 17-34-3 has the tools in.

In Ellis County, C. B. Faber and others have a rig up for No. 1 Murphy, NW cor. SE, Section 33-12-16w.

In Greenwood County

John Starke's No. 1 Pixlee, SE cor. SW NW, Section 5-22-10, Greenwood County, was dry and abandoned at 2,385 feet. Hazlett and others' No. 1 Sowder, SE cor. Section 12-22-10, was shot with 80 quarts at 3,136-68 feet and made a 165-bbl. flow in 24 hours. Rhodes & Ables' No. 3 Browning, NW cor. SE NE, Section 18-22-10, started at 100 bbls. from sand at 2.354-84 feet. R. G. Gillespie's No. 4 Browning, NW cor. SE NE, Section 19-22-10, is a 70-bbl. well naturally at 2,274-79 feet.

The Cosden Oil & Gas Co. abandoned as dry its No. 2 Clopton, SW cor. SE SW, Section 18-22-11. It was a hole full of water at 2,317 feet and had dry sand at 2,080-88 feet.

The Mid-Kansas Oil & Gas Co.'s No. 10 Martindale, CSL SE SW, Section 31-23-10, made 240 bbls. a day following a 240-quart shot at 2,253-61 feet. No. 11 Martindale, SW cor. SE SW, Section 31, was rigged up.

John Rogers' No. 1 Halverson, NW cor. SW NW SW, Section 23-24-9 swabbed 280 bbls. from sand at 2,152-2,200 feet, shot with 160 quarts. No. 2 Halverson, SW cor. NW SW, Section 23 is rigged up. The Gypsy Oil Co.'s No. 1 Osmundsen, SW cor. NW NW SW, Section 23 is drilling below 2,160 feet.

Rogers and others' No. 6 Cartwright, NW cor. SW NW, Section 6-24-10,(corrected location) was shot with 200 quarts at 2,258-80 feet and started at 150 bbls.

The Houston-Okla Oil Co.'s No. 6 Sullivan, SW cor. NW NW, Section 14-24-12, found a 3,000,000-foot gas production at 345-60 feet and a 50-bbl. oil production after a 150-quart shot at 1,712-25 feet in No. 7, Sullivan, NW cor. SW NW, Section 14. No. 8 will be a twin well drilled on the location for No. 6.

The Franklin Oil Co.'s No. 1 Johnson, NE cor. SE SE, Section 14-24-12 started at 35 bbls. after a 140-quart shot at 1,768-85 feet. The Skelly Oil Co. has a machine in for No. 2 Johnson, SE cor. NE SE Section 14-24-12.

T. E. Miller's No. 1 Kerr, NW cor. NE, Section 26-26-8, was dry and abandoned at 2,850 feet.

In Harper County, D. F. Fleeger abandoned a test, No. 1 Nottingham, SW cor. Section 14-33-9w, at 3,505 feet.

In Harvey County, the Derby Oil Co.'s No. 1 Masters, NE cor. SE SW, Section 4-23-2 is drilling below 500 feet. Mason & Ralston's No. 2 Hawki, CWL NW SE, Section 4-23-2, which started at 447 bbls. a day is down to 200 bbls. a day, from sand at 2,428-37 feet.

Douglas & Younker have a dry hole at 2,640 feet in No. 1 Stika, SE cor. NW, Section 22-18-4, Marion County. The Amerada Petroleum Corp.'s No. 1 Russell, SE cor. NE, Section 15-22-3, was dry and abandoned at 3,051 feet.

In Morris County Kline and others have a rig up for No. 1 Barber, SE cor. NW, Section 32-4-7.

Valerius Oil & Gas Co.'s No. 1 Phillips, SW cor. Section 3-13-13w, Russell County, was dry and abandoned at 3,810 feet.

In the Rainbow Bend Pool in Cowley County, the Waite Phillips Co. and others' No. 1 Alexander, SE cor. Section 4-33-3, is a rig; No. 1 Alexander, C SW SW SE, Section 17-33-3, rig; No. 4 Wertman, SE cor. SW NE, Section 20-33-3, spudded in; No. 5 Wertman, C NW SW NE, Section 20-33-3 a rig; No. 6 Wertman, C NE SE NW, Section 20-33-3, a rig; No. 1 True, C NE NE NW, Section 29-33-3, a rig.

The Southwestern Petroleum Co.'s No. 1 Allen, SE cor. NE, Section 18-33-6 was abandoned as dry at 3,475 feet.

T. B. Slick's No. 1, NW cor. Section 23-34-8, was dry at 3,125 feet.

C. W. Titus' No. 2 Elliott, SE cor. Section 31-30-6 started naturally at 30 bbls. from sand at 2,865-87 feet. It had 1,000,000 feet of gas at 2,836-65 feet.

Kightlinger and others are drilling below 1,200 feet in a test on the Joseph farm, NE cor. Section 18-24-5, Butler County.

The Champlin Oil & Refining Co. has commenced drilling No. 2 Hitchcock, C SE SE, Section 16-30-1w, Sumner County.

V. S. Waugh and others have commenced drilling No. 2 Hitchcock, C SE SE, Section 16-30-1w, Sumner County.

The Waite Phillips Co.'s No. 1 Paul, NE cor. SW, Section 36-13-7w, Lincoln County, was spudded in and shut down.

C. E. Knight has a rig up for No. 1 Bealby, NE cor. NW NE, Section 9-10-14w, Osborne County.

Douglass & Yonkers No. 1, SE cor. S NW, Section 22-18-4, Marion County, was dry and abandoned at 2,640 feet.

Stearns & Streater's No. 1-A Dodge, SE cor. SW, Section 29-11-15w, Russell County, was drilling at 335 feet. Same operators' No. 1 Dodge, SE cor. SW Section 29-11-15w, was abandoned at 2,522 feet.

Faler & Rosenthal had timbers on the ground for No. 1 Murphy, NW cor. SE, Section 33-15-20w, Ellis County.

Keye Brothers were digging cellar for No. 1 NW cor. SW SE, Section 7-8-20w, Rooks County.

The Mississippi Valley Oil Co. has a rig up for No. 1-A Kyser, C E half Section 9-11-22w, Trego County. A. D. Morton abandoned No. 1 Keyser, at 1,406 feet, on the same location.

Suit Against State Of Nebraska Laid Over to Sept. 15

LINCOLN, Neb., Aug. 18.—The injunction suit filed against the State of Nebraska to prevent the State Auditor from paying State funds for gasoline to be resold at State filling stations was postponed until September 15 by Judge Frost when the case came up today for trial. T. R. P.

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PETROLIA, ONT., TOWN OF WORLD TRAVELERS

(Continued from Page 74)

Petrolia, in a sweltering temperature of 126 degrees, drilled the first producing well in the Persian fields. And at 50 below zero on the banks of the Mackenzie, Canadians, just as ironically cheerful, have hunted bear and moose to while away the long, dark months of winter waiting.

In Garden of Eden

In Mesopotamia, Petrolia drillers have scarred the surface and gouged the depths of what was once the Garden of Eden. On the shores of the Red Sea they have developed oil fields whose bitumen was used, more than 30 centuries ago, to mumify Tutankhamen. They have worked with helpers of all races —dark-brown, tattooed aborigines of New Guinea; indolent Persians, slant-eyed Chinese coolies, lazy, good-natured, bath-loving Burmese; blacks of Trinidad; still barbarous Indians of the Carribbean. White, red, yellow, brown and black, Canadian drillers have cussed them all into some semblance of discipline and usefulness.

Typhoid, yellow fever, fire and flood, wild beasts and venomous reptiles and hostile natives, German submarines and Bolshevist dungeons, all these agencies of peril and destruction have menaced them and taken their toll—and still the Canadian driller goes forth, unafraid.

In Petrolia homes today where women watch and wait are countless curious souvenirs of far lands. Gaudy ponchos and vicuna robes from Peru, Turkish table covers, hand-carved chairs and plates from Galicia, bright-hued fabrics from Ecuador, curious coins and strange postage stamps from all the lands humanity has ever visited—these are some of the exhibts. One driller brought home a comprehensive collection of Venezulan parrots, from the gaudy red and green guayamaca, two feet high, to the white-headed babita, no larger than a canary.

Picture All Wrong

To stay-at-home folks whose initiation into the oil industry has been confined to a chance visit to some drilling or producing well, the word "driller" conveys a vague idea of a rough individual in overalls and mud—chiefly mud. He may be oil-bespattered into the bargain, and he looks as muscular as he is dirty, and even more capable of swearing a blue streak than he is of drilling a well. Handy in a rough-and-tumble fight, a hard scrapper, a hard worker, a heavy drinker and a tough character generally—such is the not uncommon idea of the driller. And unlettered and ignorant?—of course.

Now, that picture of the driller is all wrong. To begin with, the last count of the indictment—no man is ignorant who knows one thing well. The driller knows his business, intimately; he has to. He has, as a rule, a working knowledge of several langauges, and he knows how to handle men in several more. He knows geography; he has worked out his map, not in school. but on the surface of the earth. His work compels him to be a grimy mechanic. Wash that grimy mechanic, put him in evening dress, and you have—in 9 cases out of 10—as fine a gentleman as Canada, or even England, could wish. He has to be a thorough-going man to qualify as a driller. If by any chance a moral or physical weakling crept into the ranks, the trade would inevitably make a man of him, by sheer necessity of its insistent demand for real manhood. Either that, or it would kill him.

Story of Duncan McIntyre

Those who know declared that the foreign driller can't quit. In witness whereof is cited the experience of Duncan McIntyre, one of the finest of the Canadian experts.

In the early years of the war, McIntyre was working in the Burma fields at Yenang Yaung. He was crushed under a two-ton pump. His left knee, both collar bones, left jaw bone, right shoulder blade, right arm in two places, practically every rib—in all, 22 bones—were broken.

An ordinary man would have died on the spot. But it takes more than an ordinary man to make a Canadian driller. McIntyre spent weeks in the hospital, hanging betwixt life and death by the slenderest of threads. At times his pulse reached the vanishing point. His temperature fell lower than doctors had ever thought possible for a living man.

Yet after a long siege, the very tedium of which would have killed most men, McIntyre on crutches tottered aboard ship at Rangoon. The vessel escaped submarine perils. McIntyre, after traveling 12,000 miles, was sufficiently recuperated to walk ashore at New York with the aid of a cane.

At London a son met him with tidings that the wife and mother at Sarnia, was dead.

Later, McIntyre quit drilling "for good." He launched a promising manufacturing enterprise at Sarnia. And .... at last accounts, Duncan McIntyre is in Burma, drilling. The lure of the bit and sinker is too strong.

How Alf Brownlee "Quit"

No one knows better than the driller himself the inevitability of his return, so long as life is in him. The summer of 1922, at Miri, Sarawak, British Borneo, Alf Brownlee, at a farewell tiffin given him by the drilling colony, declared emphatically that thenceforth he would "stick close to home." A fellow-driller, writing home at the time, commented ironically:

"Alf deludes himself with the thought that he is going home no more to roam; but we think he will hear the call of the East very loudly in about six months and will not be surprised if he persuades his wife that she hears it also. Then some bright morning the 'kajang' will drop anchor in Miri roads, Alf will drop into the 'Helen' alongside with his case of B. V. D., bottle of chutney and katty of quinine, the happiest man in Borneo, bumping over the bak on the last lap of his journey back to the little old bungalow on the hill."

Alf Brownlee fooled the prophets, however. He stuck to Petrolia for nine or ten months. Then he left for South America on a three-year drilling contract. That is what a Petrolia driller considers "sticking close to home."

Drillers in the War

When the great war broke out, many drillers volunteered for active service. To such, the military or naval authorities, as the case might be, had just one answer. In effect they said:

"Quit your kidding and get back to your job. You're a lot more use to king and country right where you are. Any driller who goes soldiering ought to be shot at sunrise."

Absolutely correct! Fuel oil for battleships and submarines, petrol for airplanes and tanks, came to be, ultimately, deciding factors in the war. The war feverishly stimulated production in the existing fields, and the development of new fields. It practically brought the present Persian Field into existence. There, Canadians, laboring under a tropic sun, drilled well after well, and laid pipe lines to link the field at Ahwaz with the refining port of Mohammerah. Now and then they shouldered rifles and set bayonets, repelling Turkish raids. General Townsend's expedition, though in a military sense it ended disastrously at Kut-el-Amara, nevertheless removed for the balance of the war the menace to the Persian fields.

It was late in 1916 that Rumania entered the war; and shortly after that Mackenzen, crumpling its defenses by swift and furious blows, struck unerringly at the great oil fields.

Rumanian Experiences

Since the days of George Normandy, Canadian experts had been linked almost continuously with the Rumanian development. Of these men, at least one, Charles Drader, had made a fortune. The city of Ployesti, at the head of the Prahova Valley, some 38 miles north of Bucharest, was the great refining center. From this point radiated a mighty network of pipe lines, linking the refineries with Buchtenari, Buzen, Campina, Moneti and other points in the producing fields. In 1916 the Rumanian Government had commenced the laying of a huge trunk line

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from Ployesti 170 miles across country to the Black Sea port of Constanza. Into this huge system, an ever-increasing aggregate of oil wells poured their riches.

Mackenzen's swift onrush changed all this. Even the military disasters were less calamitous than the prospect of this huge field becoming available to the petrol-starved invaders. There was but one alternative—complete destruction. The thing was done, with ruthless efficiency and terrifying swiftness.

For half a century the field had been growing great from small beginnings. Thirty-five years before the first Canadian expert had come there. Into the tremendous system of wells, pipe lines and refineries had entered the labor of hand and brain of many experts, and the patient toil of thousands of humbler workers. Now, all this work of half a century had to be wiped out.

The huge refineries were dynamited and wrecked; the pipe lines were blown up and broken; the wells were choked with steel and concrete; the drilling outfits were demolished. Canadians who had helped in the great work of development assisted just as efficiently in the ruthless destruction, and the German invaders, in place of the efficient producing organization they coveted, found only a chaos from which, patiently, they had to build anew.

Most of the Canadians in Rumania escaped. But, earlier, the swift thunderclap of war following the assassination of Archduke Franz Ferdinand caught the Canadians in Galicia unprepared. In a way their tools had struck deep into the Austrian soil. MacGarvey himself; Jacob Perkins, the refining expert; J. P. Connolly, with his warm Irish smile and his handclasp like the grip of an octopus—these were only a few who, unable or unwilling to leave behind the work of 30 years, faced the hardships, the hostility and the heartbreak that war brought. Interned, suspiciously watched or even compelled to work against their native country, MacGarvey, Perkins, Connolly and many others died before the struggle was over.

Russian Adventure

In 1911 C. E. Wallen, an Oil Springs man, went to Russia as field manager of the North Caucasian Oil Co., at Grozny. He took with him his wife and his daughter, Elaine; a son, Charles, was born there. Till the Russian revolution, conditions were relatively happy.

With the advent of the revolution, however, the workmen took control of the oil fields. Wallen was forced to remain as manager; but his salary was reduced to a parity with the wages paid his office boy. Armed boys and men, crazed with the lust for destruction, robbery and murder, roamed the streets of Grozny. Red officers looted and killed without restraint. The foreign residents armed to protect their lives; but bit by bit they were stripped of every vestige of property.

To make matters worse, the Tchechens, a Tartar tribe from the mountains, besieged the town, and ultimately drove out the Bolshevists. They looted the pitiful remnants the Reds left behind, and finished their last raid by opening the flowing wells and firing them. Wallen's last glimpse of Grozny—the last he was to see of it in life—was of oil wells burning, 14,000 bbls. of oil a day ascending in a huge pillar of smoke.

Wallen and his family had been robbed of practically everything but the clothes they wore. Nearly five months were spent in their flight from Germany to Inver-Gordon.

Humorous Side

If drilling has its hardships, it has likewise its compensations. One of these is the ability of the tough and seasoned driller, wise in the ways of the world, to collect a laugh from the tender susceptibilities of the raw recruit. The older man, be it remembered, will stand up for his young pal against real perils, every day in the week and every hour in the day, and will shed his heart's blood in the boy's defense; but he is not averse to enjoying a laugh which involves no harm. That is, no permanent injury.

The natives at Suez, though really

(Continued on Page 120)

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INTENSIVE DEVELOPMENT SHOWN AT MOUNDS TOWNSITE, CREEK COUNTY

By Ralph T. Baker

With the exception of the development at Lawnwood, one of Tulsa's "backyard" oil fields, no area in the Mid-Continent is showing as intensive development within a small area as the rush now under way at Mounds, in eastern Creek County. For many years this town slumbered with the scattered development which took place on all sides, following the extensions to the Glenn Pool, only a few miles north. Various sands were found productive in a small way on all sides of the town, but the residents did not dream that their town property would ever become the center of such an intensive drilling campaign as has been witnessed recently.

With 12 producing wells making approximately 2,000 bbls. daily from Dutcher and Wilcox sands, and about 25 additional wells drilling or ready to drill, there is no sign at present of any let-up in activity in the region of Mounds. The completion of a dry hole in the Wilcox sand by the Noble Oil & Gas Co. in its well on Lot 4, Block 13, Mounds Townsite, has not dulled the enthusiasm of operators in the southern part of the town or those holding acreage to the east and south of the town. Dutcher sand wells have been finished near the Noble duster also the Noble well passed through the Dutcher sand from 1,930 to 2,030 feet with a break, and got the Wilcox sand at 2,407 feet with a hole full of water on top.

The Riverland Oil Co. drew the active attention of operators to the Mounds district several weeks ago when it completed a Wilcox sand well at No. 4 Maxwell, CNL SE SE, Section 8-16-12, two locations east of the townsite, which made 358 barrels the first 24 hours from Wilcox sand at 2,354-68 feet. The top of the Mississippi lime was reached at 2,105 feet in this well.

First Wilcox Producer

The first Wilcox sand producer in the area was drilled by T. E. Turner and the King Petroleum Co. at No. 1 Walker, CWL SW SW, Section 9-16-12, one-quarter of a mile east of the townsite. This well was finished in July 1921, making 15 bbls. and a little water from sand at 2,370-77 feet, and is still pumping several barrels daily. Later litigation prevented any additional developments of consequence on this acreage and it was only after recent checking by the Riverland geologists that the Wilcox sand test was decided upon which resulted in the townsite development.

A number of additional wells have been drilled to the Wilcox sand to the east and south of Mounds. These may define the pool, making it small in area as are most of the eastern Oklahoma Wilcox sand pools. Suppes, Minshall & Turner finished No. 1 Sampson, SW cor. NW, Section 9-16-12, as a gas well in the Taneha sand in January, 1922, after having drilled through the Wilcox sand at 2,430-37 feet, obtaining only a show of oil. The Minnehoma Oil Co. drilled through the Wilcox sand in 1918, at its No. 1 Walker, NW cor. SE SW, Section 9-16-12, reaching a total depth of 2,760 feet. To the south and east, Ireland and others found the Wilcox sand dry in their test well in the northeast corner of Section 17-16-12, getting water in the top of the Wilcox sand at 2,400 feet. Davis and Heggerman got a dry hole in their No. 1 Adams, CEL SE NW, Section 17-16-12, drilling to a total depth of 2,550 feet. Thompson & Black's No. 1 Jenkins, NE cor. NE NW, Section 10-16-12, to the northeast, was completed as a 36,000,000-foot gas well in the Taneha sand.

Finished First Well

T. E. Turner, one of the old-time contractors in the Mounds area, with Suppes and others, finished the first Wilcox sand completion on the Mounds Townsite, which was drilled on Lot 22, Black 13. This well reached the top of the Mississippi lime at 2,075 feet, 40 feet higher than in the Riverland No. 4, just east of it. On the other hand it got the Wilcox sand at 2,384-96 feet, the top being 30 feet lower than in the Riverland well. Water was found in the last two feet drilled in the Suppes well, which was plugged off and the well was given a 10-quart shot, with the result that it is now considered good for 70 to 100 bbls. daily.

What is considered one of the best wells in the new development is the one being completed by Boso and others on Lot 1, Block 37, Mounds Townsite, which drilled Dutcher sand from 1,965-2,030 feet and found a show of gas at 1,935 feet. Wilcox sand was found at 2,374-79 feet, where the hole filled with oil and made several good flows, being estimated good for as much as 300 bbls. daily. The 6-inch pipe has been landed, the rig is being repaired, and the well is estimated good for 100 bbls. as it stands, with several feet of cavings in the hole.

The Riverland Oil Co.'s No. 5 Maxwell, in the SW cor. NE SE, Section 8-16-12, got 2,000,000 feet of gas in Dutcher sand at 1,910-2,020 feet and drilled to the Wilcox sand at 2,374-80 feet and the well was showing for 150 bbls., flowing by heads. The same company's No. 7 Maxwell, NW cor. SW NE SE, same section, had a show of gas in the Dutcher sand at 1,905-2,020 feet followed by a 150-bbl. well in the Wilcox sand at 2,394-99 feet.

In Dutcher Sand

The first three wells on the Riverland Oil Co.'s 80-acre lease in the southeast quarter of Section 8-16-12, which also includes the Mounds Townsite development, were completed several months ago as gas wells in the Dutcher sand. Developments in the townsite campaign indicate that this sand may also be counted upon to produce considerable oil. Howard & Duffield's No. 1, on Lot 22, Block 24, townsite, shows the characteristics of the Dutcher sand in this territory. Scouts insist that two Dutcher sands are to be found, or that there is one thick Dutcher sand with a large break. At any rate, drillers in this well found 3,000,000 feet of gas in the upper Dutcher sand, at 1,905-15 feet, black lime was drilled from 1,915-20 feet and sand at 1,920-50 feet was dry. Black shale was drilled from 1,950-90 feet and the lower Dutcher was found at 1,990-2,012 feet with pay sand from 2,012-50 feet, which made 234 bbls. the first 24 hours and is yet making about 200 bbls. daily.

The Riverland Oil Co. found the Dutcher sand productive in No. 6 Maxwell, NW cor. SE SE, Section 8-16-12, which got the upper Dutcher at 1,897-1,920 feet and a break at 1,920-2,015 feet with the lower Dutcher at 2,015-59 feet which was finished for 230 bbls. Suppes Brothers, on Lot 4, Block 25, Mounds Townsite, got the upper Dutcher at 1,885-1,904 feet, which made a flow of 5,000,000 feet of gas. Lower Dutcher was drilled from 2,007-97 feet with pay at 2,007-81 feet, which looks good for 75 to 100 bbls. after a 100-quart shot.

Proving Good Producer

The Dutcher sand is proving a good producer at other locations in the Mounds area also. J. J. Schock's well in Lot 10, Block 23, topped the lower Dutcher sand at 2,055 feet and at 2,095 feet was showing for 300 bbls. daily. It was pinched in pending erection of tankage and laying of pipe line. Five million feet of gas at 1,965-2,014 feet had been bradenheaded off. Anthony, Adams & Hotchkiss got a good producer in the Dutcher sand at their well in Lot 18, Block 24, which was estimated good for 200 bbls. from sand at 2,007-47 feet. Sheldon and others were finishing their well in Lot 19, Block 12, as a Dutcher sand producer. A show of gas was reported in the upper Dutcher at 1,955 feet. Oil was found at 2,045 feet and the well was looking good for an excellent producer.

Thus the Dutcher sand, with its six producing wells, promises to give an account for itself, together with the Wilcox sand which has an equal number of producers in the territory.

Among the additional wells drilling in Mounds or the immediate vicinity, which have an intimate bearing upon the pool are the following No. 1 wells: Troy Bowen and others, Lot 2, Block 35, rig and tools; Bradstreet Oil & Gas Co., Lot 21, Block 7, drilling at 1,400 feet; Calvin & Belt, Lot 4, Block 36, drilling at 350 feet; Daley Brothers, Lot 22, Block 12, a rig; B. B. Flynn, Lot 20, Block 1, drilling at 1,600 feet; L. P. Gawland, Lot 3, Block 26, spudding; Harris & O'Hair, Lot 4, Block 23, spudding; Henry Oil Co., Lot 19, Block 12, setting 8-inch pipe at 1,685 feet; Miller Brothers, Lot 3, Block 12, drilling at 1,400 feet; Noble Oil & Gas Co., Lot 4, Block 24, drilling at 1,300 feet; Noble Oil & Gas Co., Lot 17, Block 25, a rig; Sheldon and others, Lot 6, Block 11, drilling at 1,065 feet; Stover and others, Lot 1, Block 36, drilling at 2,100 feet, missed second Dutcher; West & Hancock, Lot 5, Block 23, spudding; Lebow and others, Lot 4, Block 39, rig.

Southwest of Town

Southwest of the town, Hartman and others have a rig for an important development at No. 1 Taylor, NW cor. NE, SW SW, Section 17-16-12. The Riverland Oil Co. was offsetting the more likely looking part of the townlot development with its No. 8 Maxwell, SW cor. NW SE SE, which was a rig.

Later developments of interest include new work to the east and northeast. T. E. Turner, Clyde Turner and the Minnehoma Oil Co. have a location for No. 1 Walker, NW cor. NE SW, Section 9-16-12. Thompson & Black have a machine in place for No. 1 Muskogee, CWL SW NE, Section 9-16-12.

As at Mounds, deeper drilling and checking of minute structural details is rewarding Oklahoma producers with an increased production of oil. At present, no flood of oil can be expected from the Mounds townsite development, but the score or more of producing wells which can be expected to find oil will add their quota to the amount already in hand.

PLANT OPERATORS MEET IN BRECKENRIDGE

(Continued from Page 114)

"It is very easy to underestimate the size and importance of a leak. We have a sewer line that drains all our pump and machinery rooms. A short time ago we installed an oil trap on the discharge from this sewer and found to our amazement that we had been losing 200 gallons of mineral seal oil each 24 hours."

Value of Salvaged Material

"The Value of Salvaged Material," discussed by R. R. Dean of the Waite Phillips Co., Tulsa, proved to be of much interest. "This subject is one that affects the gasoline industry differently from the other major industries of the country," he said. "Take, for instance, the steel industry. When a plant is designed it is built with a view of remaining for probably 75 or 100 years, while a gasoline plant is built maybe for a year or even less or longer as the case might be. When an oil pool is opened and its resources developed it is not known whether the pool will last 2 years or 20 years."

Following Mr. Dean's adddress a questionnaire was held and a number of questions were propounded and answered as follows:

"In dismantling and shipping plants what should be charged off? If machinery is merely packed and shipped without repairs what should be charged?"

Answer—"It would be governed largely by age, class of equipment, etc. However 25 per cent off new price should be charged provided the engine was practically as good as new. If material was junk, so to speak, only 15 or 20 per cent of the original price should be charged. For string of pipe practically new 25 per cent off from original price. If pipe has to be rethreaded or if junk, 75 per cent off."

"What should be done with cracked cylinder heads?" was the next question which entailed a discussion on welded steel heads to replace cast ones. Many had had decided success with the former. In a discussion on welding cylinder heads C. H. Brown of the Brown Welding Co. gave much practical information. He declared that heads could be successfully welded but it depended largely on the class of the head. He said more than 50 per cent could be saved by welding heads in instances where it was practicable to weld them. A 1½-ton Dodge engine when welded for the first time was successful, but when attempted the second time checking was developed across the valve seat.

"To what extent must the engine head be cracked to be classed as junk?" was then asked. Mr. Brown said he had successfully welded them when the crack extended clear across the head into the combustion space both inside and outside. In preheating for that, however, the jacket should be heated hotter than inside of head. Cast iron would stand more pressure but not much tension, he said.

Relining Cylinders

"Does it pay to reline cylinders?" was asked. Otto Peters said he thought it did if the same sizes were used on all plants and bushings were kept in stock. Another thought that reboring of cylinders was economical up to 16 inch.

The recovery of used lubricating or cylinder oil was discussed. Some thought recovery was hard and not practical on account of carbon. Others used De Laval separators with excellent results.

Perry Skinner of the Skinner Brothers Belting Co., St. Louis, Mo., discussed the five different kinds of belting in his talk on "Selection and Care of Belts." He said tests have shown that leather belting on the average transmits 25 per cent more power and warned operators against buying of improper weight for the purposes needed.

R. M. Coyle of the Chestnut & Smith Corp., Ranger, spoke on "Fire Hazards and Fire Prevention." He charged that most fires are caused by carelessness and declared that persons who are responsible for allowing fires to start in gasoline plants are murderers to the extent that their carelessness or indifference has allowed human lives to be taken by such fires. He enumerated various fires that have occurred in the North Texas Field during the past year, giving the cause and said most of them could have been prevented by proper checking up against leaks and other things that might allow fire to get started. Carelessness in designing, not taking precaution against the careless operators, carelessness of plant superintendents, carelessness of employes were all given as direct causes of fires.

Mr. Coyle appealed for precaution and regualr inspection of fire fighting apparatus. He said water is the poorest fire fighting agency for oil fires. He told of soda and fire extinguishers being safe mediums if the solutions are kept ready and in ample supply at all times.

Ideal Plant Operation

A message setting up some of the ideals for a plant operator to follow, "Requirements of a Good Operator" was given by Otto Peters of the Chestnut & Smith Corporation, Oklahoma division, Tulsa.

A paper of unusual value to those looking for new things was read at the night session by R. C. Alden, general superintendent of the Landreth Gasoline Co., Breckenridge. He described the construction and operation of that company's charcoal plant at the Ibex Pool, this being the first charcoal plant in the Mid-Continent Field.

Marshall Young, general superintendent for the Roeser & Pendleton Corp., Breckenridge, spoke on "How to Get the Most Good Out of a Plant Operator Meeting." George M. Masses, district manager for the Dearborn Chemical Co., Kansas City, Mo., read an interesting paper on "Water Treatment," which was received with considerable enthusiasm.

Several plants near Breckenridge were visited and the association was invited to hold a meeting in Ranger at an early date.

Pushing Production

to meet the demand necessitates the saving of all useless operations about the plant, among which is the constant repacking of piston rods and small valves.

This may be avoided by using

"PALMETTO"

the packing that has the quality to give long, satisfactory service.

Braided for rods, round and square, in 5-lb. boxes.

Such a packing may cost a little more than ordinary packings, but it is worth it.

Twist for small valves. Any size valve packed from one spool by unstranding.

Let us send you working samples to test under your own conditions—no charge.

GREENE, TWEED & CO.
Sole Manufacturers
109 Duane St., New York

Shot of 20 Quarts Extinguishes Blazing Gasser Near Bristow

One 20-quart shot of jellified nitroglycerin or gelatin was sufficient to put out the fire at the blazing gas well of Sartain Brothers, known as No. 2 Artusse, in the southwest corner of the northwest of Section 32-17-8, northwest of Bristow in Creek County, which caught on fire when struck by lightning early Friday morning. The well blew in with a flow of 115,000,000 feet daily four days before it caught on fire. One hundred sacks of cement had been poured around the top of the casing to anchor the rods which were to hold the 10-inch valve that was in place to shut in the well.

The derrick was destroyed, but the cement, valve and 24-inch nipple as well as the tie rods were not damaged. The gasser was burning unhampered when M. M. Kinley of the Standard Torpedo Co., Tulsa, accompanied by W. E. Gibson, arrived shortly after noon Friday.

A tripod of 1-inch pipe was then constructed and moved into position under the flame. The casing, valve and short nipple raised the outlet of the gas about 8 feet above the ground. The tripod stood about 18 feet high and was moved as close as possible to the current of gas from the well. The bottom of the burning gas was about 36 feet above the top of the pipe and the gas burned in a flaming torch at least 100 feet above the ground.

Mr. Kinley and his assistant rigged up the 20-quart shot and swung it into place in the tripod, about 2 feet from the center of the gas current, about 4 feet above the mouth of the well, and about 12 feet from the ground. The wire holding the shot was anchored about 50 feet from the well and Mr. Kinley retired about 150 feet after wiring his connections between a storage battery and the shot. The shot and all wiring were protected by asbestos.

The shot was fired and the men were rising from the ground before the flame was entirely snuffed out, the volume of gas being so great that several seconds were required to burn out the gas above the current of air created by the shot. A new derrick will be built, and the gasser will be shut in soon.

OKLAHOMA REFINERY PRICES ADVANCE

(Continued from Page 22)

very little, if any, is available for immediate shipment. Offers as high as 5 cents for September delivery have been received during the past week. The few manufacturers in Oklahoma are asking 4¾ cents and up for September delivery, depending on grade. Cosden & Co., the largest manufacturer, are practically sold up for the remainder of the year. The activity in Group 3 market is a reflection of that which has been noticeable in eastern export circles for two weeks.

Neutrals and Cylinder Stocks

Lubricating oils are the one class of products which continued generally sluggish during the past week. Conditions are practically the same as they have been for weeks. The belief has been advanced that the greater activity in the gasoline market will be reflected in the lubricating stocks. Others do not expect any change. Prices are the same as last week.

PUBLICITY PROGRAM STILL IN DISCUSSION

Four methods of giving information for the public concerning the oil business are now under consideration by the committee of 17, of the American Petroleum Institute, according to Harry H. Smith, secretary of the Mid-Continent Oil and Gas Association. These four ways are as follows: News distribution method; paid advertising in newspapers through individual companies; word of mouth method, and filling station distribution method.

D & B
"Quality First"
Sucker Rods

are the best that engineering skill can produce.

—they can be relied upon under all conditions of service.

D & B Pump & Supply Co.
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Los Angeles, California
Branch: Love Aviation Field
P. O. Box 1033 Dallas, Texas

LIGHTNING
OIL FIELD SUPPLIES
PUMPING POWERS, JACKS, STUFFING BOXES, ETC.

More Power—Less Vibration
Instant Service
Insist on Lightning Pumping Powers
They Are Correct in Design

Husky Enough to Do the Job Right
The reliable eccentric motion does away with jerky lines.
Built in three sizes:
No. 4—Belt Drive, weight 6,500 lbs. For deep wells.
No. 2—12 H. P. engine, weight 4,600 lbs.
No. 1—6 or 8 H. P. engine, weight 3,200 lbs.
Turntable gear is easily removable and having a broad face, coarse teeth and large diameter will stand up to the heaviest loads.
Shackle lines set low to the ground (13 in.) eliminate excessive strain.
Quickly installed.
Oil Field Supply Dept.
KANSAS CITY HAY PRESS COMPANY
Kansas City, Mo.

PROFITS and COSTS

The Hough Extension Lower Valve with **oversize** Steelex Ball and Seat is designed to put profits up and costs down. Briefly: all steel construction; permits slow stroke; greater clearance for fluid keeps valves free of mud and sand; simple and self-contained; fits any make of working barrel; tapped for large size gas anchor.

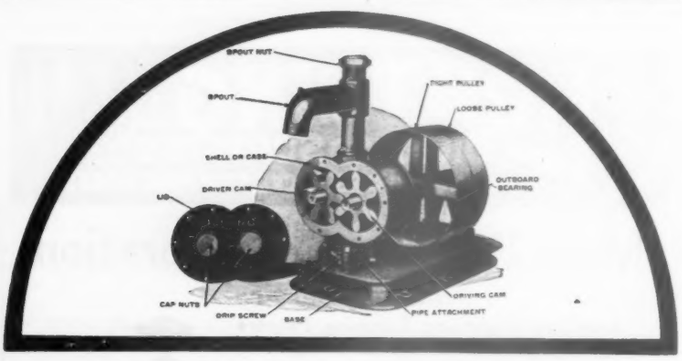
Your dealer carries them in stock —**test one.**

To Put One Up—
—the Other DOWN

The Chas. N. Hough Manufacturing Co.

Franklin, Pennsylvania

Products that cut down your underground overhead



THE above photograph shows the rugged simplicity of a typical Deming Rotary Force Pump For pumping oil, gasoline, kerosene and circulating water for gasoline engines, use Deming Rotary Force Pumps. They are built ***right***. You may depend on Deming for that!

Write for Catalog

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Atlas Supply Co., Muskogee, Okla.
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Petrolia Supply Co., Wichita Falls, Texas
Krueger Machinery Co., San Antonio, Texas
San Antonio Mach. & Supply Co., San Antonio, Texas

Deming PUMPS

PETROLIA, ONT., TOWN OF WORLD TRAVELERS

(Continued from Page 117)

harmless, can, at times, put on startling stunts for the benefit of innocent travelers on vessels passing through the canal. The manifest alarm of two young fellows, drillers on their first trip to foreign fields, at these native performances, seem to have suggested possibilities to their older and wiser companions.

The old cargo boat passed through the canal without mishap, and toward nightfall rounded Cape Ammel, in southern Arabia. Throughout the day the veteran drillers speculated audibly on the chance of attack from the Arabian pirates who infested these waters and even at times raided the big liners.

Darkness fell. The cargo vessel, with its load of growing fears, slowly crept across a smooth sea. The night was black—intensely so.

Suddenly from the darkness over the side emerged a score of dusky savages, armed with axes, pikes and cutlasses. With horrible yells they rushed at the passengers.

What followed was too confusing for accurate description. Indeed the veteran drillers, experienced in the ways of pirates, retreated at the first onslaught.

But the youngsters did not run. They were not built that way. In the face of the onrush, one of the boys grabbed a heavy bar of iron and belted a pirate unceremoniously behind the ear. Then he made a rush, not from, but at the assailants, and the pirates ran precipitately. In an instant they had vanished over the side.

Nothing of value was missed, and the only casualty was a sailor, who nursed a most prodigious bump, sustained, as he said, in trying to drive off the pirates.

A lengthy account of the affair, signed by one of the supposed participants, appeared in the Petrolia paper. The story was copied far and wide. It came to the notice of the Anglo-Persian Oil Co.

I can picture those sober Britons debating with mighty ponderosity. Arabian pirates! No such thing had been known in their experience. The driller who wrote home was, metaphorically speaking, called on the carpet. He knew nothing of the letter—nothing whatever. His honesty in the matter was palpable. Plainly, one of his fellows had written home, and forged his name to the story.

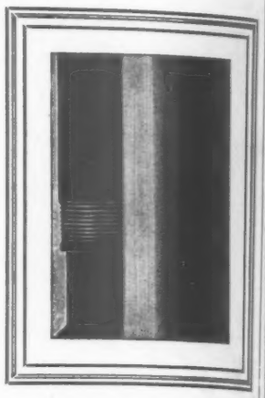
As for the "Arabian pirates"—why, some of the sailors and some of the older drillers had "made up" to scare the youngsters. It was a good joke, too—or would have been if it hadn't been for the iron bar, and the awful wallop young Ernie handed out with it, and the painful way in which the jokers barked their shins in their precipitate flight from imminent destruction.

GUSHER AT BAKU

According to the latest information from Baku, says the Russian Review, the productivity of the oil gusher recently struck at Surukhany is steadily growing. The well is the biggest producer since Azerbaijan came under Soviet rule. Approximately 150,000 poods of oil are being spouted by the gusher every 24 hours. Production commenced in the latter part of May when the well ejected a quantity of gas together with about 20,000 poods of oil. The increasing productivity of the well is indicated by the following figures: 50,000 poods on May 27, and 85,000 poods on May 26; 100,000 poods on May 27; 125,000 poods on May 28. It is now estimated, the Review says, that the productivity of the well may reach 200,000 poods per day.

OPENS LITTL ROCK OFFICE

The Chamlette Petroleum Corp. of Shreveport, La., has recently opened a sales office in Little Rock, Ark., covering the territory of Arkansas, Missouri, Kentucky and Tennessee. M. P. Malloy, Jr., until recently connected with the Acme Petroleum Co., Chicago offices, is in charge of the Little Rock office.



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Shoes
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QUALITY - First
Prices Reasonable

Sold By Leading Supply Companies

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method, and filling station distribution method.

How Many Times a Year Do You Pull Standing Valves?

Every Time You Do This Device Could Be Paying for Itself

If you pull the lower valve of your wells 6 times a year, your investment in a Norris Clutch-Type Standing Valve Puller would pay you just about 600% returns.

This is because every time you use this profitable device it pays completely for itself.

The Norris Valve Puller is by far the simplest and most effective on the market. It is based on the clutch principle. A few turns of the rods brings the upper part of the clutch into engagement with the lower. The standing valve is then ready to be pulled with the rest of the equipment. That extra run of the rods that costs money and loses production is eliminated.

The Norris Valve Puller also has large, solid bumping surface that will prove especially valuable.

In a word, the Norris Clutch-Type Standing Valve Puller, while an inexpensive article, is one of those profitable little necessities that no pumping well can get along without. Since it returns its cost every time you use it, isn't it a good idea to install it in your wells at once? At your supply house or direct.

Manufactured by
NORRIS BROS., Inc.
Manufacturer of Oil Well Pumping Equipment
Robinson, Ill.

NORRIS
Clutch Type
STANDING VALVE PULLER

British Imports of Petroleum Products Show Big Increase

The importation of petroleum products into Great Britain in 1924 bids fair to exceed 1923 if the figures for the first 26 weeks of this year may be taken as an indication of what the entire year will show, says Trade Commissioner M. M. Mitchell, London, in a report to the Department of Commerce. The first half of 1923 showed a total import of some 574,000,000 Imperial gallons, while the first half of this year has run well over 697,000,000 gallons. At the present rate of importation the total for the whole of 1924 should range somewhere near 1,550,000,000 gallons as against 1,323,000,000 gallons for the whole of 1923.

The increased importation during the first half of 1924, amounting to 123,000,000 gallons, occurs in all the varieties of petroleum products with the exception of kerosene and gas oil, both of which commodities are below the 1923 figures, kerosene to the extent of some 20,000,000 gallons and gas oil to a little over 2,000,000 gallons. The other varieties all show large increases; in round figures they amount to about 8,000,000 gallons in lubricating oil, 35,000,000 in crude oil, 34,000,000 in fuel oil, and nearly 70,000,000 in gasoline. Gasoline has shown the largest increase in the percentage which its importation bears to the entire petroleum import, as well as the largest actual increase in gallons brought in. This figure is indicative of the very great increase in consumption of gasoline in Great Britain, because the importation of crude has also grown, which means that much more gasoline is being produced within this country as well as imported.

One of the pertient deductions to be drawn from the import figures is that the refining industry is still rapidly growing in Great Britain, the crude oil imports having increased 23.3 per cent in the first half of 1924 over the corresponding period of 1923. The chief participant is the Anglo-Persian Oil Co., whose importations of crude oil for the first six months of 1924 increased from 135,000,000 to 176,000,000 gallons, an increase of some 30 per cent which was directly reflected in the percentage which the import of crude bears to the total import of that company. The large increase in its crude oil importation went to its refineries at Llandarcy and Grangemouth, which have turned out a large part of the gasoline sold by its subsidiary, the British Petroleum Co., Ltd.

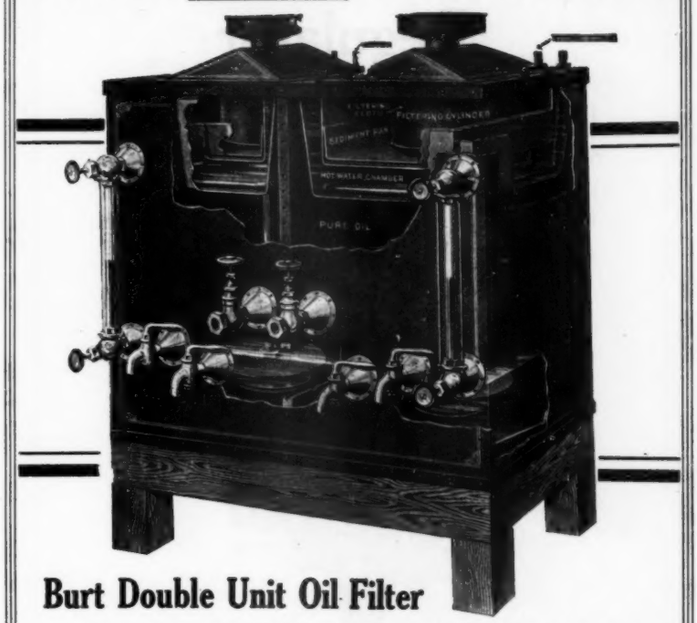
Another conclusion is that while the total import into Great Britain of petroleum products, both crude and refined, is greatly increasing, and while the importation of crude oil and the refining in this country are on the increase, the consumption of refined products, particularly gasoline, is growing much faster than the refining industry, with the result that the increase in the percentage of import of gasoline has been twice as great as the increase in the importation of petroleum products as a whole.

NOT AGAINST OIL MEN, SAYS GENERAL CALLES

NEW YORK, Aug. 16.—Assurances that his administration would not be hostile to American oil companies and other interests operating in Mexico were given by General Plutarco Elias Calles, president-elect of Mexico, on his departure for Europe.

"I am absolutely in favor of oil companies owning property in Mexico," said General Calles, "and there will be no disposition on the part of my administration, when it takes office, to take over the property of any American oil company. We welcome American capital as well as other capital in the development of Mexico."

Filters 2 Kinds of Oil at Once



Burt Double Unit Oil Filter

In power plants where two kinds of oil must be filtered at once, the Burt Double-Unit Filter pictured above is making enviable records.

Composed of two compact units, it takes up little room. Each unit works independently of the other, and embodies all the features that have made us the largest manufacturers of oil-filtering equipment in the world.

Burt Filters save 50% to 90% of lubricating bills, and operate 15 to 20 years without repairs. The Standard Oil Co. has placed their 452d order for Burts. Let us send you full details no matter how small or how large an oil user you are.

Sent on 30 days' trial subject to approval.
THE BURT MANUFACTURING COMPANY
920 Main St., Akron, Ohio

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Pipe Cutting and Threading Machinery

The oil business is one of heavy duty therefore requires heavy duty machines. We have them.

Sizes up to and including 24"

Belt, Motor or Steam Engine Driven
Also
Equipped for Gasoline Engine Drive

THE COX & SONS COMPANY
BRIDGETON, NEW JERSEY
Business Established 1868

Petroleum Co., Chicago offices, is in charge of the Little Rock office.

Fulton House-Service Regulator

Equipped with a highly efficient spring valve which automatically reduces high intake pressures to any desired degree. Its strong feature is the valve seat which our catalogue fully explains. Send for your copy today.

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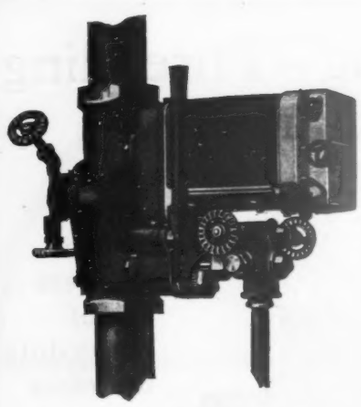

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One electric motor operates both the fuel and the air valves. The sturdy and simple Bristol design and construction provides a positive and close control that is complete assurance of highly efficient fuel utilization.

In refinery practice and in the use of oil fuel in other industries the Bristol-Fuller control has proved so thoroughly satisfactory that it is the pronounced favorite of leading engineers.

The Bristol sales engineers gladly will furnish you with complete details of the Bristol-Fuller control and its performance in the work you have in mind for it.

Ask for Bulletin M-319

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SAY AUTO OWNERSHIP CAN YET BE DOUBLED

AKRON, Ohio, Aug. 16.—Either automobile ownership is far over expanded in some — especially rural States — or the motor ownership of the country can be easily doubled without any strain, is the conclusion of an analysis of motor ownership now in relation to the number of persons paying income taxes.

In at least 14 States the automobile ownership, as of July 1, was four times the number of income taxpayers of 1922.

On July 1, 1924, there were 15,409,840 automobiles in the country, according to the Akron Chamber of Commerce tabulation, as compared with 6,787,481 income taxpayers reported in 1922. The income taxpayers may have slightly increased subsequently, but it is doubted if the relationship will be materially altered when new tax figures are produced.

The following table compares the automobile registration as of the beginning of the present year with the income tax returns:

	Autos	Taxpayers	Net Income
Alabama	154,234	43,612	$ 126,208,473
Arizona	45,161	20,079	48,459,738
Arkansas	113,300	32,072	95,625,678
Calif.	1,080,800	420,923	1,357,524,621
Colorado	150,425	67,463	184,572,407
Conn.	126,072	138,431	401,720,343
Delaware	31,300	17,141	53,981,068
D. of C.	75,401	77,933	231,328,739
Florida	181,490	41,531	132,047,020
Georgia	107,025	69,988	199,432,831
Idaho	62,977	23,269	51,166,973
Illinois	986,480	614,449	1,927,637,451
Indiana	581,889	153,460	426,365,818
Iowa	569,268	131,870	359,568,828
Kansas	360,796	86,915	211,061,984
Kentucky	204,079	69,666	200,048,892
Louisiana	145,000	66,972	203,664,606
Maine	115,713	43,041	139,857,441
Maryland	175,718	110,896	386,330,235
Mass.	557,223	397,241	1,237,893,477
Michigan	765,044	267,953	796,411,946
Minnesota	462,777	122,885	348,740,625
Miss.	114,070	26,897	76,981,743
Missouri	477,056	173,726	526,387,658
Montana	73,828	38,044	83,903,851
Nebraska	373,238	67,502	177,969,193
Nevada	15,995	9,723	22,397,460
N. H.	64,375	31,787	85,577,058
N. J.	435,894	301,834	1,032,262,375
N. M.	35,283	11,553	28,982,814
N. Y.	1,103,332	1,102,745	4,110,588,989
N. C.	246,812	58,009	171,929,259
N. D.	103,649	18,750	43,767,089
Ohio	1,160,000	364,988	1,138,934,714
Oklahoma	285,400	72,063	217,555,604
Oregon	165,362	61,879	161,226,232
Penn.	1,094,647	587,770	2,005,570,020
R. I.	78,469	50,076	171,409,669
S. C.	139,245	26,230	72,755,770
S. D.	127,400	21,465	48,949,551
Tenn.	160,476	63,555	190,773,937
Texas	651,949	186,865	545,901,576
Utah	67,133	27,325	67,744,653
Vermont	52,614	17,901	51,653,367
Virg'nia	233,450	71,523	207,277,343
Wash	266,599	123,216	300,523,342
W. Va.	154,772	69,501	196,277,359
Wisconsin	474,063	160,519	301,670,058
Wyoming	37,950	21,943	48,826,743
Total	15,409,840	6,787,481	$21,336,212,530

GYPSY CO. DRILLING ON NEW MEXICO LINE

CASPER, Wyo., Aug. 16.—The Gypsy Oil Co. is starting a campaign of drilling along the south line of Colorado and in New Mexico. Due to the legal tangle recently started by the Interior Department over the leases to oil companies by the Navajo and other Indian tribes, the oil men are not at all anxious to drill wells on the reservations. For a time there was a good demand for Indian land leases, but since the Government has filed its objections to the leases being granted, the oil men have lost interest in northern New Mexico. The outcome is being watched with interest, however, in the case of companies that have gone into that region and found production, especially the Midwest Refining Co., which firm is now completing a pipe line to move its oil from the Navajo reservation to a rail point.

TO LIGHT LAKE CHARLES FIELD

LAKE CHARLES, La., Aug. 16.—Plans for the electrification of the new Lake Charles oil field on the west side of the Calcasieu River by L. C. Beckenstein of Vinton was proposed to the Calcasieu police jury. Mr. Beckenstein represents the Orange Ice, Light & Water Co., of Orange, which has a plant at Vinton. Permission was asked for right of way along the highways of the Parish west of the river. The proposition was taken under consideration.

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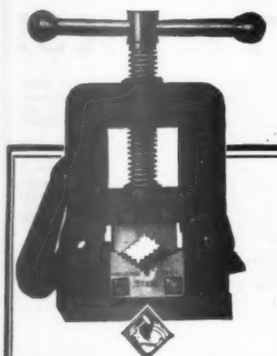

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Another Old Kansas Field Will Be Given Tests to Wilcox Sand

FREDONIA, Kans., Aug. 16.—Rigs are up on three locations near Fredonia, Wilson County, for the purpose of drilling Wilcox sand tests. With these three wells in progress, another crew at work east of Neodesha, an additional location announced east of Benedict and half a dozen other blocks of Wilson County acreage being worked out for Wilcox tests, it is certain that this section is to get a real play for the deeper pay sands this summer and fall.

A rig has been moved to the Farwell land in Section 34-28-15, northeast of Fredonia. The test will go to the Wilcox level, and is being drilled by the Fredonia Gas Co. for Zoch & Barnes, of Tulsa.

C. W. Smith, of Lawrence, has contracted with the Fredonia Gas Co. for a Wilcox test on his land in Section 1-30-14, south of Fredonia, and the rig is now on the location and the crew should be spudding in as this is written.

Severy & Crandall, of Tulsa, expect to spud in their test in Section 5-31-13, southeast of Lafontaine within a few days. The Fredonia Gas Co. is drilling the test and the rig is already on the ground.

Fitzpatrick, Rhodes & French, of Tulsa, will make a location for a Wilcox test on their block of acreage east and south of Benedict very shortly, probably near the middle of Section 12 or Section 13, Township 28, Range 14, and expect to start a well within a very short time.

Several Good Gas Wells

Several shallow gas completions have been made in the county during the last few days. McDonald and others have a 200,000-foot gasser in the shale at 670 feet in the southwest quarter of Section 34-28-16. Crumley has a 300,000-foot gasser in the shale in Section 1-29-16. Burton & Aitken have a 1,500,000-foot gasser in the sand at 910 feet in the northeast of the southeast of Section 3-28-17. Hendrick and others of Denver are drilling on the Ruggles land in Section 26-28-15, for shallow gas.

ATLANTIC CO. OMITS DIVIDEND ON COMMON

PHILADELPHIA, Pa., Aug. 15.—Following meeting of directors of Atlantic Refining Co., the following statement was issued:

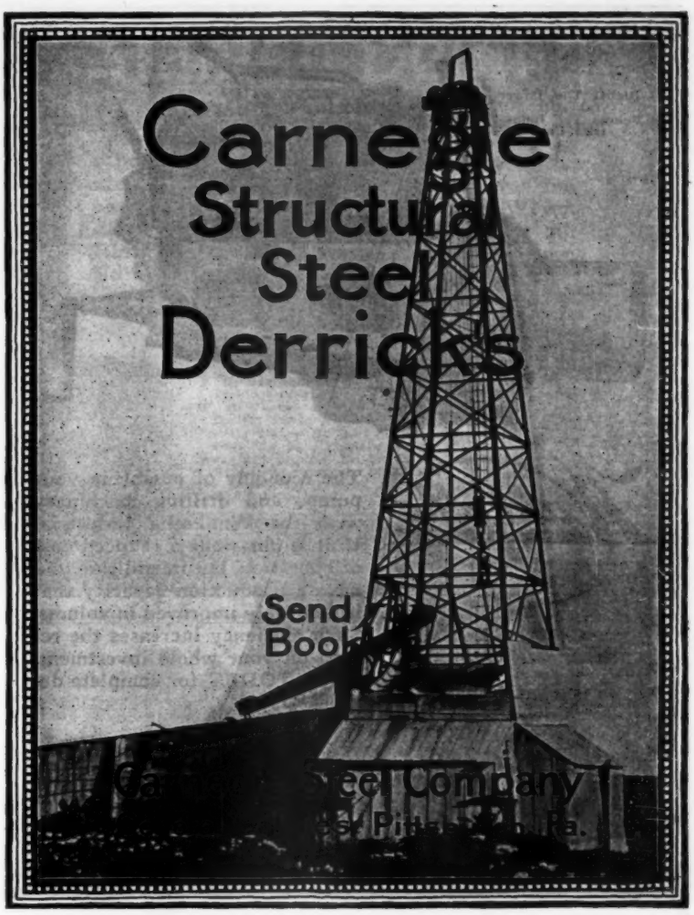
"The Board of Directors of Atlantic Refining Co. met and omitted the declaration of a quarterly dividend on the common stock which has heretofore been payable September 15."

President J. W. Van Dyke said: "A semiannual statement of our company shows net profit of about $2,200,000 for the period ended June 30, 1924, against $1,800,000 for the corresponding period of 1923.

"Because of the uncertainty of business conditions in general and petroleum industry in particular it was the opinion of the board of directors that for the best interests of the common stockholders all cash resources should be conserved at the present time; and, further, that it would be advisable to continue this policy until the recent issues of 4½ per cent gold notes had been paid off at their various maturities or by prior redemption until the call clause contained in said notes."

TEST NEAR NEW BOSTON, TEXAS

SHREVEPORT, La., Aug. 16.—Col. Humphries and associates, operating as the Boyd Oil Co., have leased a large tract of land near New Boston, 22 miles west of Texarakana, and are building derrick for a test to be started at once. Harrell Brothers Oil Co. of Tulsa, have taken leases on several thousand acres between New Boston and Dalby Springs, and will drill at an early date.



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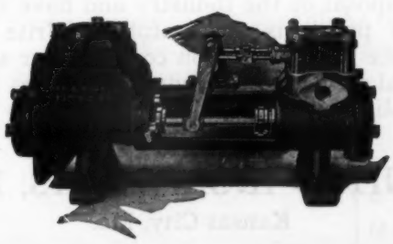

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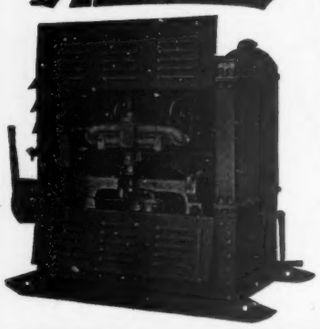

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Additional Completed Work and New Tests In Oklahoma-Kansas

The following record of completions and new work started in several Oklahoma and Kansas fields is in addition to the general field report given elsewhere:

In the Burbank Field, Osage County, the Mid-Kansas Oil & Gas Co.'s No. 5, NE cor. SE NE NW, Section 26-27-5, was a 50-bbl. initial producer after a shot at 2,966-3,006 feet. The Phillips Petroleum Co.'s No. 3, SW cor. NW SW SE, Section 20-27-6, started at 100 bbls. following a shot at 2,903-43 feet. The Marland Refining Co.'s No. 8 (corrected number) C SW NE SE, Section 20-23-8, Osage County, was holding up at 280 bbls. an hour through a 1-inch choker from sand at 2,599-2,603 feet.

Holbrook & Bartlett's No. 1, Lot 12, Block 101, SW cor. NW SE, Section 25-20-9, Pawnee County, started at 18 bbls. naturally from sand at 1,935-2,007 feet.

Frank Moore's No. 2 McDermott, NE cor. NW SW, Section 16-16-9, Creek County, was a 70-bbl. well at 3,030-36 feet. The Tidal Oil Co.'s No. 4 Sanders, C SE SW NE, Section 16-16-9, was dry and abandoned at 3,001 feet.

In the Watchorn or Otoe Field, in Pawnee County, the Marland Refining Co.'s No. 4 Miller, SE cor. SW SE NW, Section 33-23-3e, made 660 bbls. naturally from sand at 4,069-71 feet. The Magnolia Petroleum Co.'s No. 3 Altaffer, NE cor. Section 5-22-3e, started at 882 bbls. a day naturally from sand at 4,051-65 feet. It was an old well drilled deeper. The same company's No. 2 Akeketa, SE cor. SE NW, Section 9-22-3e, was a 15-bbl. well after a 40-quart shot at 4,224-44 feet.

In the Sholom Alechem Pool, in Carter County, the Humble Oil & Refining Co.'s No. 1 Lusk, C NE NE NE, Section 33-1s-3w, was drilling at 3,663 feet and flowing 155 bbls. a day. It was 3 feet in sand.

The Skelly Oil Co.'s No. 1 Cruce, C SE NW NW, Section 23-2s-3w swabbed 200 bbls. the first day and 158 bbls. the second from sand at 2,740-60 feet. The same company's No. 1 Davis, C NE SW NW, Section 23-2s-3w, made 120 bbls. a day at 2,355-76 feet. C. R. Smith's No. 1 Davis, C NE SE SW, Section 23-2s-3w, was flowing 50 bbls. from broken sand at 2,482-2,520 feet. The Twin States Oil Co.'s No. 1 Williams, C SW SE NW, Section 23-2s-3w, was estimated at 80 bbls. at a total depth of 2,440 feet. It is shut in. No. 3 Williams is good for 90 bbls. on the swab at 2,664 feet. The Tidal Oil Co.'s No. 3 Choate, C SE NE NE, Section 32-2s-3w, sand at 2,542-70 feet, 17 bbls.; Wirt Franklin's No. 2 Underwood, C SE NW SW, Section 5-3s-2w, sand 2,432-44 feet, 75 bbls.; Schermerhorn and others' No. 1-A Dickerson, C SW SE NW, Section 5-3s-2w, broken sands from 2,453 to 2,914 feet, 80 bbls.; Acco Oil Co.'s No. 1 Arrington, C NE NE NW, Section 6-3s-2w, dry and abandoned at 3,254 feet. Patsy Oil Co.'s No. 3 Arrington, C NE SW SE, Section 6-3s-2w, sand at 2,680-2,752 feet, 50 bbls.; Patsey Oil Co.'s No. 7 Palmer, C NE NE NE, Section 6-3s-2w, sand at 2,720-52 feet, 70 bbls.; Pure Oil Co.'s No. 31 Lowery, C SW NW SE, Section 4-4s-3w, swabbed 75 bbls. the first day and flowed 75 bbls. at a total depth of 3,936 feet, after having been plugged back from 4,092 feet; Rockland Oil Co.'s No. 8 Dillard, NE cor. SE SW NW, Section 22-4s-2w, total depth 3,610 feet, dry in lower levels, plugged back to 2,816 feet, flowing 40 bbls. top of sand at 2,750 feet; Wolverine Oil Co.'s No. 31 Dillard, NW cor. NE SW SE, Section 22-4s-2w, broken sand from 1,830 to 2,539 feet, 125 bbls.

Briscoe & Hall, No. 3 Headlund, NE cor. SE NE, Section 11-5n-9w, Caddo County, got a series of sands from 1,842 to 2,417 feet and flowed 100 bbls. in six hours. It is not completed; English Drilling Co.'s No. 3 Headlund, NW cor. SW NE, Section 11-5n-9w, sand at 1,838

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Melernee and others have a 7,000,000-foot gasser in No. 2 Britton, C NW SW, Section 20-1s-8w, from sand at 1,995-2,010 feet.

Kansas

The Wood Oil Co. & McCray are drilling below 460 feet in No. 1 Ransom, NW cor. Section 5-26-41w, Hamilton County, about 10 miles from the Colorado State line.

New work started in Ellsworth, Lincoln and Russell Counties, Kansas, includes the following: G. E. Scott and others' No. 1 Stone, SE cor. SW NE, Section 19-11-6w, Ellsworth County, Ballaire and others No. 1 Lewis, C NW SE, Section 22-11-6w; Waite Phillips Co.'s No. 1 Paul, NE cor. SW, Section 36-13-7w, rig up and tools in; Laurel Oil & Gas Co.'s No. 1 Walker, SE cor. SW NE, Section 24-14-7w; F. E. Clark, No. 1, NW cor. Section 29-12-8w, Lincoln County, Santell & Jarvis, No. 1, SE cor. Section 13-11-13, Russell County, spudded in and shut down; C. E. Knight and others' No. 1, NE cor. NW NE, Section 9-10-14w; Stearns & Streeter's No. 1 Dodge, SE cor. SW, Section 29-11-15w; Valerius and others' No. 2 E. Oswald, SW cor. SE SW, Section 8-12-15w, Russell County, drilling below 1,550 feet; same operators' No. 1, NE cor. NW, Section 17-12-15w, running 10-inch pipe at 1,525 feet; No. 2, NE cor. NW NW, Section 17-12-15w, total depth 900 feet; Prairie Oil Co.'s No. 1 Hill, NW cor. NE, Section 13-13-14w, shut down at 185 feet, but will start up soon. Jim Davis and others' No. 1 Smith, NW cor. 14-12-16w, rig on the ground.

ATTORNEYS GENERAL TO BE INVITED HERE

OKLAHOMA CITY, Okla., Aug. 16.—The Attorneys General of the various States will likely be visitors to the oil fields of Oklahoma in the near future to get first hand information about all departments of the oil industry. Following an informal invitation made by Attorney General George Short while in conference at Washington the Oklahoma official will soon issue formal invitations by letter suggesting that the convention of Attorneys General meet in Oklahoma at a convenient date in September. This undoubtedly will be of considerable value to the State officials as it will give them an insight into a business in which they are not now familiar.

"Most of the Attorneys General are not informed about the oil industry," said Mr. Short. "Probably most of them have heard complaints about gasoline prices but have not had an opportunity to act intelligently. When they come to Oklahoma we want to take them for a tour of the principal fields that they may learn about the production of oil. Then they will be conducted through some of the leading refineries and later through marketing departments. Pipe lines will be given a study."

JAPANESE VISIT LAKE CHARLES

LAKE CHARLES, La., Aug. 16.—While making a tour of the oil fields of the United States, a party of four Japanese oil men, three of whom are said to be the holders of oil properties in Japan, visited Lake Charles. The party was composed of H. Kishi, wealthy oil man and rice planter, of Terry, Texas, and the officials of the Nippon Oil Co., of Tokio; S. Momoto, assistant manager of the producing department; N. Yadamada, engineer, and M. Yamagughi, auditor. The party visited the Ged-Vinton Fields and also the Union Sulphur Co.'s holdings at the Sulphur mines.

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Los Angeles leads the world in the number of "drive-in" stations with a total of 2,079. The number has doubled in a year. More than 40 "brands" of gasoline are sold. There are approximately 200 service stations in San Francisco; Detroit has 603 "drive in" stations, and Boston, Mass., 520.

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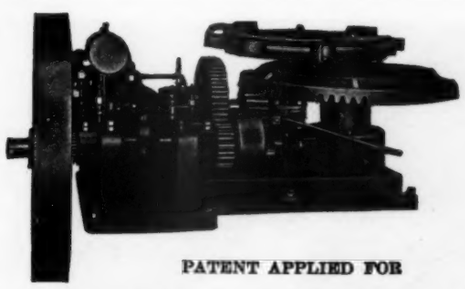
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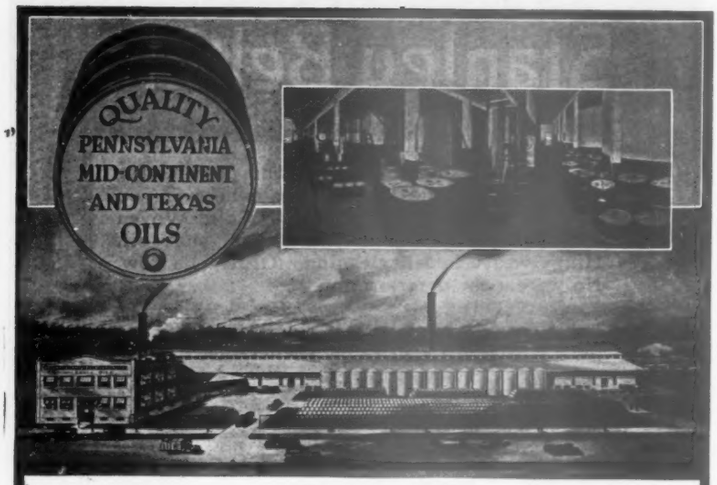

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By Victor Lauriston

CHATHAM, Ont., Aug. 16.—In certain parts of Canada, especially New Brunswick, Nova Scotia and Northern Ontario, are large areas underlain with oil shales. The part which these shales may yet play in supplying the world demand for petroleum products was emphasized before the British Scientific Association at Toronto by W. W. Watts, professor of geology at the Imperial College of Science and Technology, London, England, in his presidential address to the geology section.

The feature which made Professor Watts certain that Canada is yet destined to be commercially important from the standpoint of oil production was his belief that the existing oil fields of the world have mostly been developed. Their capacities, as oil producers, he said, are well known and these capacities do not give promise of meeting the world's steadily increasing demands. So, since the oil fields cannot meet the demand of the future, there must be some other solution of the problem. That, Professor Watts believed, is to be found in shales, and when it comes to a matter of oil shales, there is no country richer than Canada.

Professor Watts used this argument as an illustration of how the development of the natural resources of a country cannot be successfully carried out without taking geology into consideration. For it is the geologists who make known the mineral and other resources. In discussing the possible future yields of mines, oil and water wells and quarries, he said there are huge areas of economic significance about which little is known; and that elaborate sampling, new methods of testing and the recognition of new varieties, as for example in the case of coal, will have to be put in practice before it can be said we are making justifiable and economic use of the capital reserves stored up for our benefit in the rocks.

Criticizing the administration of oil fields, Professor Watts said: "While we blame our forefathers for the destructive and wasteful handling of the coal fields, it is ourselves and our own generation that we must blame for the serious waste of oil and the destructive exploitation of oil fields. There is no economic subject to which geology has a more direct relation than the occurrence and exploration of oil fields."

Reminding his audience that the development of fuel oil on a large scale had revolutionized many branches of industry, and has had a marked effect on civilization in general. Professor Watts suggested that energetic methods will have to be taken if mankind is to continue to enjoy the advantages of this convenient fuel.

"Although there still remains a recoverable percentage in the oil producing areas," he said, "there are already signs that the high oil mark has been reached, if not passed.

"But it is no small comfort that although our supply of native oil, easily won, easily refined and applied, cannot last much longer, there are abundant supplies of oil shale left, sufficient to take its place for many decades to come."

In addition to pushing the exploration of new fields, Professor Watts urged that geologists should consider it a part of their duty to see that economy is practiced in the use of present supplies.

The newer countries, such as Canada, the United States, India and Australia, are in a fortunate position with regard to their mineral wealth, said Professor Watts, as they are in a position to exercise rigorous control from the first over the utilization of deposits. In Great Britain, on the other hand, the mining industry is so old, and mineral wealth has been so plentiful in certain spots, that the eyes were picked out of the mines, and frequently their skeletons were laid bare, too, before the mining geologist had a chance.

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BETTER FARM PRICES; WILL BUY MORE CARS

The rapid advance in prices for agricultural commodities recently is expected to have a beneficial effect on the motor industry in the latter part of this year. If farmers receive, as has been estimated, hundreds of millions of additional revenue from this year's crops, it is reasonable to expect that a good portion of this added purchasing power will be used in the buying of motor cars. No occupation gets more value out of the automobile than does farming and, strange as it may seem, figures indicate that a large percentage of this market remains undersupplied.

The large gains in automobile sales since the war have been in prosperous industrial communities where wages have been high and conditions prosperous compared with farm conditions. Many farmers under hard times of the past few years have been compelled to use old or second-hand cars badly in need of replacement.

Some months ago, the National Automobile Chamber of Commerce in a survey of the situation, showed that there are only 70 cars a 1,000 persons in rural districts, compared with 127 automobiles a 1,000 in towns and cities of 1,000 population and upward.

The ownership of motor cars is proportionately the heaviest in villages of 1,000 to 5,000, which have about 9 per cent of the United States population, but own 20 per cent of the automobiles. These communities have one motor car for every 4.4 persons, or 230 cars a 1,000.

While some allowance should be made for the fact that the number of cars actually owned on farms are registered from the nearest small town, this factor is hardly sufficient to disturb the conclusion that farm markets in relation to the population are still the least developed, since the difference between the registration per capita in the country and the city is so large.

FUEL OIL FOR LOCOMOTIVES

The Interstate Commerce Commission reports fuel oil consumed by locomotives for the five months ended May 1923 and 1924 as follows (figures in thousands of gallons):

Eastern District—	1924	1923
New England region	50	.....
Great Lakes region	1,520	2,057
Central eastern region	1,173	1,271
Total, eastern district	2,743	3,328
Pocahontas region	.....	.....
Southern region	26,420	20,404
Western district—		
Northwestern region	91,158	67,423
Central western region	412,691	379,934
Southwestern region	332,556	273,714
Total, western district	836,405	721,071
United States	865,568	744,803

PURE OIL CO. OFFICES MOVED

The general offices of the International-Ardmore division of the Pure Oil Co. have been moved to the building at Tulsa formerly owned and occupied by the Oklahoma Producing & Refining Co. The company vacated the building built by the Pure Oil Co., located at Fifth and Cheyenne Sts., across the street from the Mayo Hotel, now under construction. It is understood this building will be sold. The new quarters will be known as the Pure Oil Building, the Oklahoma Producing & Refining Co. having lost its identity through its recent absorption by the Pure Oil Co.

DISMISS SUIT AGAINST SINCLAIR

NEW YORK, Aug. 16.—The Supreme Court at Poughkeepsie has dismissed the $10,000,000 suit against the Sinclair Oil Co. by Percy N Lawrence, who alleged malicious interference with his contract with Layton O. Sherman, inventor of a gasoline extraction process, caused the breaking of negotiations with The Texas Co. syndicate composed of W. E. D. Stokes and others, for the sale of the process.

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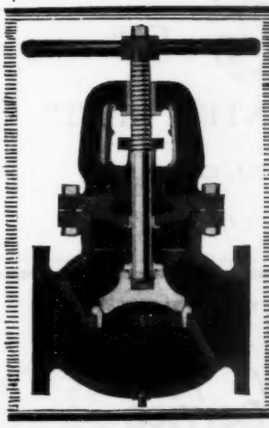
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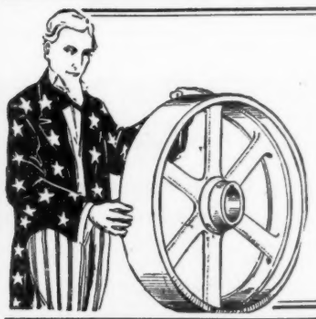

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Progress on Grounds And Buildings for Big Oil Exposition

An important step was recently taken toward the completion of the buildings of the International Petroleum Exposition which will be held in Tulsa October 2 to 11, when final arrangements were made and contracts signed for the construction of the 450 exhibitors' booths within the buildings and arcades of the exposition.

The booths will be modeled after those of last year, but different material will be used in the construction. Each booth consists of a back panel 10 feet long by 5 feet high, side panels 4 feet high, extending 4 feet from the back panels, and a front rail of wood. The framework and railings are painted in white, and the panels are of apple green sheetrock, carrying out the exposition colors of green, white and gold. Exhibitors are allowed to dispense with the side panels and front rails if they prefer.

Each booth is equipped with a uniform sign, and a 100-watt electric lamp with shade. Additional power for lighting and electric motors will be furnished at low cost. Gas and water will also be supplied for a nominal sum. The exposition this year has bought its own furniture, and will rent it to exhibitors at a moderate price, to insure them against profiteering. The furniture will consist of oak chairs, tables and costumers, linoleum rugs and cuspidors.

Foundation work on the new buildings has been completed and the men have made good progress in the superstructure. A certain amount of remodeling has been necessary on the permanent brick buildings on the grounds—reflooring, decorating and minor improvements. The old buildings are to be completed by September 1, but the new structures may not be ready for exhibitors until September 15.

During the period of heavy building, the six avenues and the central plazas of the exposition grounds will be graded, drained and paved with crushed stone and chat. Landscape gardeners have been employed to plan the final touches to the property. There are already several large and well-kept grass plots and flower beds on the grounds, which were started by the Prairie Oil & Gas Co. The rest of the grounds, except that part given over to outdoor exhibits, will be sodded and laid out in flower beds. Shrubs and flowers of a hardy nature will also be planted about the buildings and along the avenues.

The food concessions on the grounds will be operated this year by the several Tulsa church organizations, and will be given special attention since the grounds are far from the restaurant district of Tulsa. One whole building will be given over to meals and refreshments.

OIL PROPERTIES SOLD

WARREN, Pa., Aug. 16.—Julius Billstone of this city and Bradford parties have purchased the entire holdings of Roman Schnur oil and gas leases in Elk and Glade Townships, Warren County, together with a gas well on the property of the Warren Axe & Tool Co. on the east side, yielding approximately 4,500 feet daily, and an oil well on the Anna Syns lot in Glade Township. The new owners will further develop the leases by the immediate drilling of 10 or more additional wells. Operations are now under way. Mr. Schnur, it was stated, intends to retire from active participation in the oil business, in which he has been a promipent figure in Warren County for a number of years.

OIL FOR CENTURY IN POLAND?

Polish authorities estimate that crude oil reserves concealed in the lower Carpathians will last more than a century. The late geologist, Professor Grybowski, estimated reserves of crude oil in Little Poland at 100,000,000 to 160,000,000 tons, which was considered low.

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PETROLEUM IMPORTS AT PRINCIPAL PORTS

Imports of crude and refined oils at the principal ports for the month of July totaled 7,260,000 barrels, a daily average of 234,193 barrels, compared with 7,841,000 barrels, a daily average of 261,367 barrels for the month of June.

Imports at the principal United States ports for the week ended August 2 totaled 1,597,000 barrels, a daily average of 228,143 barrels, compared with 1,425,000 barrels, a daily average of 203,571 barrels for the week ended July 26.

	Total month of July	Week ended Aug. 2
At Atlantic Coast ports—		
Baltimore	375,000	88,000
Boston	260,000	70,000
New York	1,971,000	530,000
Philadelphia	179,000	.....
Others	1,114,000	223,000
Total	3,899,000	911,000
Daily average	125,774	130,143
At Gulf Coast ports—		
Galveston district	1,418,000	359,000
New Orleans and Baton Rouge	1,211,000	248,000
Port Arthur and Sabine district	579,000	64,000
Tampa	153,000	15,000
Total	3,361,000	686,000
At all United States Ports—		
Total	7,260,000	1,597,000
Daily average	234,193	228,143

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of July totaled 2,891,000 barrels, a daily average of 93,258 barrels, compared with 3,822,000 barrels, a daily average of 127,400 barrels for the month of June.

Receipts at Atlantic and Gulf Coast ports for the week ended August 2 totaled 603,000 barrels, a daily average of 86,143 barrels, against 282,000 barrels, a daily average of 40,286 barrels for the week ended July 26.

	Total month of July	Week ended Aug. 2
At Atlantic Coast ports—		
Baltimore	167,000	.....
Boston	70,000	.....
New York	2,017,000	603,000
Philadelphia	374,000	.....
Others	188,000	.....
Total	2,816,000	603,000
Daily average	90,839	86,143
At Gulf Coast ports—		
New Orleans and Baton Rouge	75,000	.....
Daily average	2,419	.....
Total Atlantic and Gulf Coast ports	2,891,000	603,000
Daily average	93,258	86,143

HEAVY SHIPMENTS FROM ARKANSAS OIL FIELDS

SHREVEPORT, La., Aug. 16.—The Nevada Pool, in Nevada County, Arkansas, now boasts of a production of 1,500 bbls. a day, with 400,000 bbls. of oil in storage, one large treating plant completed and another under construction. The Keystone Oil Co. had its plant completed and has built loading racks on the Mansfield Hardwood Lumber Co. railroad, which connects with the Missouri Pacific at Reader. Smitherman & McDonald are building a large steel treating plant and have also completed a loading rack at the railroad. The Keystone Company has about 8,000 bbls. of oil ready for shipment and rail shipments are being started.

Enormous shipments of oil are being handled by the Missouri Pacific Railway from the Arkansas oil fields to the Standard Oil Co.'s refinery at Baton Rouge and to Avondale and Sabine Pass for export.

Reports that the various pipe line companies are vying with each other in contracting for oil from the Smackover Field, is nurturing a hope that the next six months will see an improvement in the crude market and the return to a price basis which will enable operators to resume normal drilling activity.

GASOLINE USE IN QUEBEC

Between $5,000,000 and $6,000,000 is being spent this year for gasoline to operate motor vehicles and motor boats in Quebec province, either by residents or visitors, according to the Provincial Revenue Department. It is estimated 17,500,000 gallons of gasoline will be used.

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Detailed Operations in Eastern Fields for Month of July

EASTERN FIELDS

Summary of Wells Complete

Field—	Comp.	Prod.	Dry	Gas
Allegany	37	55	0	0
Bradford	100	236	3	0
Middle Field	12	28	0	1
Venango-Clarion	39	53	0	3
Butler-Armstrong	9	7	4	0
S. W. Penn.	17	10	4	7
West Virginia	97	362	22	37
S. E. Ohio	97	825	23	8
Total July	408	1,576	56	56
Total June	397	1,470	53	74
Difference	11	106	3	18

Field—	Rigs	Drg.	Ttl.
Allegany	14	30	44
Bradford	30	97	127
Middle Field	3	8	11
Venango-Clarion	3	28	31
Butler-Armstrong	11	18	29
S. W. Penn.	16	28	44
West Virginia	56	170	226
S. E. Ohio	34	98	132
Total July 31	167	477	644
Total June 30	161	401	562
Difference	6	76	82

ALLEGANY FIELD
Wells Completed

Heseltine, Atwood & Stebb.ns	1
Heseltine, Atwood & Stebbins	1
White, Penny Sand Oil	1
Dears, A. & S. Austin	1
Perkins et al., G. Parker et al	1
Norton, First Trust & Richardson	2
Fee, Albert Oil	3
Fee, Empire Gas & Fuel et al	2
Fee, Empire Gas & Fuel et al	2
Fee, Albert Oil	2
Canfield, Carter & Bradley	1
Childs, Empire & Childs	1
Smailey, Kellar & O.	1
Fee, Empire & Williams	1
Fee, Phillips & Howard	1
Quick, Empire & Breckenridge	1
Fee, Hazelwood Oil	1
Fee, R. J. Dermitt	flood
Fee, Forest Oil	flood
Fee, Forest Oil	flood
Fee, E. J. Phillips	2
Fee, A. E. Yahn	flood
Birtcil, F. L. Putnam, et. al	1
Fee, Yahn	flood
Fee, Allegany Bradford Oil Corp.	2
Fee, Conklin & Reeland	1
Fee, Lester et al	1
Lesure, W. W. Potter	1
Fee, Forest Oil	2
Fee, Empire	5
Fee, L. F. Williams	2
Fee, Sawnett Oil	3
Fee, Fornett & Jennings	5
Fee, Sawnett Oil	1
Childs, Neal K. Wilson	1
Fee, Lavens et al	2
Fee, Burr Oil	2
Wells completed	37
Production	55
Flood	5

BRADFORD FIELD
Wells Completed

Baldwin, Forest Oil	dry
Noble, Forest Oil	2
Middaugh, L. J. Lilly	2
Keating, South Penn	2
Jones, South Penn	5
Shepard, South Penn	2
Moore, C. H. Williams	2
D. C. & B., C. A. Duke	1
Sprague, S. J. Sprague	1
Burns, Arthur Yahn	1
Fee, Fennell & Wormer	1
Worthman, D. J. Moody	2
Gridley, J. P. Kervin	1
Keating, Potter & Nichols	2
Borden, Pressure Oil	2
Borden, T. B. Wilson	3
Morse, Jos. Minnich	3
Borden, W. B. Miller	2
Duke, Gridiron Oil	2
Skinner, W. E. Burdick	3
Borden, T. P. Thompson & Son	3
Howard, Pressure Oil	dry
Sill, Hope Oil	2
Sill, Hope Oil	2
Fee, J. H. Gibson	1
Freeman, Hardy & Stuchel	2
Jack, J. & H. M. Jack	1
Boyd, Whitehead & Carson	2
Bayer, J. F. Magee	3
Bingham, Hazelwood Oil	1
Enterprise, Hazelwood Oil	1
Lovell, Ostrander et al	1
Campbell, G. F. Devlin	2
Rew, Mrs. Z. Lincoln	2
Moore, C. W. Moore	2
Roggenbaum, J. Roggenbaum	2
Melvin, South Penn	1
Melvin, South Penn	dry
Duke, M. L. Boyle	2
South Penn Oil, Hurley, Wright et al	4
Mantz, L. F. Kinley et al	4
Wright, D. W. Wright et al	3
Bingham, South Penn	5
Freeman, Cotton Wright et al	3
Moody, Grant & Mohan 55	1
Bing, 370, C. L. Wann et. al. 30	3
Bing. 491, Forest Oil, Inc., No. 9, 38	4
Bing. 423, C. W. Henretta et al 15	5
Bing. 400, J. E. Ward 14	2
Bing. 380, Wilson & Fitzgibbon 68	2
Bing. 371, Lane No. 1 et al 65	1
Bing. 391, Geo. W. Bovaird 69	4
Weston, Jr., tr., South Penn Oil 67	1
Ridell Est., South Penn Oil 366	3
Fee, Curtis & Dunlavey Bros., 27	25
Letson, Mr. and Mrs. Letson 12	2
Fee, M. J. Jones 46	2
Fee, Hungerville et al 9	8
Fee, R. O. Landers et al 11	5
Fee, E. Jack et al 19	2
Armstrong et al., South Penn Oil	1
Franchot, J. B. Walters	1
Fee, Hazelwood Oil	1
Fee, L. G. Dana	1
Newell Est., J. H. Logan & McKean County Trust	1
Fee, Hooker et al	1
Franchot, R. A. Delo et al 11	3
Fee, Lawry & Huston 8	2
Franchot, W. J. Oliver 16	2
Fee, R. O. Landers et al 28	1
Fee, L. G. Dana	3
Griffith et al, Hartzell & Knabb	1
South Penn Oil, Scroxton & Son	1
Drake, Hannon Oil	3
Fee, M. E. Jones	3
Fee, South Penn Oil	1
Fee, Moses Sullivan	1
Fee, Cochran & Connelley	1
Bing. 150, South Penn Oil 49	5
Fee, South Penn Oil 12	2
Bing. 184, Associated Producers 261	5
Fee, W. C. Kennedy Co. 34	1
Fee, Hilliard & Dodge	2
Fee, W. N. Hunter et al	2
Erie R. R., South Penn Oil	3
Bing. 212, Associated Producers	2
Bing. 212, Associated Producers	2
Fee, W. C. Kennedy Co. 100	2
K. & C. Phoenix Oil 152	2
Bing. 130, Kennedy Co. No. 4, 46	1
Bing. 136, Kennedy & Co. No. 4, 47	5
Am. Devel., Johnson & Waltman Bros. 3	1
Fee, Hazelwood Oil	3
Fee, Leech et al	2
Bing. 370, Hazelwood Oil	5
Bing. 410, South Penn Oil	wtr
Bing. 440, South Penn Oil	2
Bing. 499, South Penn Oil 35	1
Bing. 567, Associated Producers 273	1
Bing. 591, Associated Producers 275	1
Wells completed	100
Production	236
Dry	3
Water	1

MIDDLE FIELD

Bingman, Rocky Grove Oil 12	1
Osten, Rembold & Co. 2	5
Neely, A. Neely & Sons 1	2
Green, Bowman & Co. 2	abd
Homan, A. Homan	1
Lot 387, Pennsylvania Oil 17	1
Lot 355, Pennsylvania Gas 840	gas
T. & W. Oil, Byers & Hawkey 47	1
T. & W. Oil, A. E. & W. C. Tompsett 63	3
Siggins, C. E. Carnahan 23	5
Hoffman, Titusville Trust 25	5
Hoffman, Titusville Trust 26	5
Wells completed	12
Production	28
Gas	1
Abandoned	1

VENANGO-CLARION

Smithman, J. B. Smithman 78	1
Stiles, tr. 74, S. Y. Ramage 68	2
Brundred 82, Brundred Oil 68	2
Fulmukendrews et al 14	1
Redfield, Stewart 12	1
Redfield, Commercial Bank, 13	2
Rodgers, Oil City Nat. Bank 12	2
Roess Bros., Roess Bros. 53	1
Hasson, Ed. Siederman 46	3
Hasson, Ed. Siederman 47	3
Venango Oil & Land, Venango Oil & Land 213	2
Venango Oil & Land, Venango Oil & Land 214	3
Waid, R. F. Whiting 19	2
Dunlop, Franklin Trust 30	1
Edinger, Hovis, Porter et al 1	1
Eakin, G. A. Eakin 30	1
Eakin, J. C. Huttenbaugh 38	1
Henderson, S. Y. Ramage 36	1
Gilmore, Hovis, Gilmore et al 18	1
Lyle, Wilbur & Geltz 40	3
Plumer, Dibble & Rousseville Drg. 60	1
McFadden, Peoples Nat. Bank acct. 36, 12	1
Crowther, Crowther Bros. 54	1
Mitchell, F. W. Mitchell Est. 120	1
Harman & Bowers, Hartman & Bowers 8	1
Hines, A. H. & E. P. Sloan 15	1
Fisher, John & R. E. Hepler 26	1
McCray, Espy Oil 11	1
Stevenson, Midland Oil Corp. 31	3
Fisher, F. S. Gates 18	1
Mercer—	
Oaks, Erie Oil & Gas 2	1
Bream Co., E. A. Bream Co. 2	1
Clarion—	
Whitehill, Wingard, Snyder, Mohney et al 2	1
Kiser, A. L. Croup et al 1	1
Dale, R. B. Dale et al 5	1
Reed, Keatley, McLane et al 5	gas
Reed, J. C. Reed et al 1	gas
Amsler, Alum Rock Gas 6	gas
Garis heirs, Mong, Garis et al 5	2
Wells completed	39
Production	58
Gas	3

BUTLER-ARMSTRONG

Williams, Riddle Cross et al 3	1
Campbell Heirs, W. D. McCarrier et al 4	2
Campbell Baird, McCandless et al 2	dry
Wick Estate, Columbus Oil	1
Ramsey Heirs, Wm. Burke & Co. 1	dry
West, Garvin & Slagle 3	dry
Wilson, E. H. Hutchison 1	dry
Bach Witt, Nehf et al 1	
Niblock, J. A. Elliott & Co.	
Wells completed	
Production	
Dry	

ALLEGANY FIELD
Rigs

Heseltine, Atwood & Stebbins.
Vincent & Ebenezer, J. A. Vincent.
Fee, Hazelwood Oil.
Fee, Empire Gas & Fuel, Ltd. et al.
Fee, Empire Gas & Fuel.
Fee, Empire, Ltd., and Breckenridge.
Fee, Emma A. McEwen.
Fee, R. J. Dermitt.
Fee, Forest Oil.
Fee, A. Z. Yahn.
Fee, Root & Perry.
Fee, Empire.
Fee, L. A. Wilson.
Fee, Sawnett Oil Corp.

Wells Drilling

Fee, Jordan & Huggins.
Richmond, M. E. Goodell.
Wheaton, W. A. Dusenbury et al.
Prall, Herrick & Wilbur.
Fee, Albert Oil.
Fee, Empire Gas & Fuel (four wells).
Canfield, Carter & Bradley.
Fee, Empire & Williams.
Fee, Forest Oil.
Fee, A. E. Yahn.
Fee, Maude Hardman.
Bertcil, F. L. Putnam et al.
Fee, E. G. Williams et al.
Saunders, Conklin & Reeland.
Fee, R. E. Lester et al.
Fee, R. J. Dermitt.
Fee, H. B. Rice et al.
Fee, Empire.
Fee, Forest Oil.
Fee, Sawnett Oil Corp.
Fee, J. Dunning & Son.
Fee, Forness & Jennings.
Fee, Sawyer & Wasson.
Childs, Neal K. Wilson.
Fee, G. N. Hill.
Fee, Lavens et al.
Fee, Dusenbury et al.
Rigs, 14; wells drilling, 30; total, 44.

BRADFORD FIELD
Rigs

Fee, Curtis & Dunlavey 3.
South Penn Oil, John Jackson, Jr., 16.
Fee, Hazelwood Oil 17.
Franchot, W. J. Oliver 17.
Griffith et al, Hartzel & Knabb.
Erie R. R., South Penn Oil.
Bing. 176, Hazelwood Oil 94.
Fee, South Penn Oil 32.
Bing. 184, Associated Producers 822.
Bing. 452, South Penn Oil 48.
Fee, W. C. Kennedy Co. 36.
Quintuple, Moore & Bradley.
Fee, A. A. Foster.
Bing. 179, Hazelwood Oil.
Bing. 136, Kennedy Co., No. 4, 49.
Fee, Hazelwood Oil 62.
Bing. 370, R. M. & James George 12.
Bing. 371, Lane No. 1 et al 66.
Bing. 370, Hazelwood Oil.
Bing. 439, South Penn Oil.
Bing. 410, South Penn Oil.
Bing. 440, South Penn Oil.
Bing. 439, South Penn Oil 67, 68, 69.
Bing. 523, South Penn Oil 62.
Bing. 570, South Penn Oil 94.
Middaugh, L. J. Lilly.
Morse, Jos. Minich.
Lawton, Cohn & South Penn.

Wells Drilling

Barse, Burns Bros. et al.
Borden, J. C. Mitchell.
Baldwin, Forest Oil.
Kating, South Penn.
Jones, South Penn.
Shepard, South Penn.
D. C. & B., C. A. Duke.
Mervin, Potter & Devore (two wells).
Burns, Arthur Yahn (two wells).
Kaff, T. H. Kerwin, Jr.
Wortham, D. J. Moody.
Keating, Potter & Nichols.
Howard, Pressure Oil.
Borden, Pressure Oil.
Morse, Jos. Minich.
Norton, Kahle Oil.
Borden, W. B. Miller.
Duke, Gridiron Oil.
Skinner, W. E. Burdick.
Borden, T. P. Thompson & Son.
Allen, A. Schorman.
Hanes, Coast & Storms.
Bingham, Hazelwood Oil.
Willett, J. H. Gibson.
Garlock, Denwood Oil.
Taylor, Mrs. M. E. Jones.
Fisher, Mrs. M. E. Jones.
Bingham, H. B. Oil.
Bingham, W. S. Jones Est.
Brennan, Colt Est.
Bingham, Barry Bros.
Murphy, Forest Oil et al.
Melvin, South Penn (two wells).
Roggenbaum, J. Roggenbaum.
Emerson, G. L. Rhodes et al.
Hamlin, S. H. Elder & Co.
Wilbur, South Penn.
Bingham, Andrus & MacDowell.
Bingham, J. L. Yerdon.
Wright, G. McCool et al.
Ridell Est., South Penn Oil 38.
Weston, Jr., tr., South Penn Oil 66.
Fee, M. E. Jones 12.
Loop et al, Murphy & Pringle 15.
Fee, J. V. Golden 22.
Fee, Daly & Hungerford 12.
Fee, Parker Farm Oil 13.
Fee, D. T. Andrus et al 10.
Armstrong et al, South Penn Oil.
Fee, Hazelwood Oil.
Fee, L. G. Dana.
Fee, Hooker et al.
Newell Est., J. H. Logan & McKean County Trust.
Franchot, W. C. Kennedy Co. No. 1.
Fee, Lawry & Houston 9.

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Leasure, South Penn Oil.
Fee, A. A. Park.
Fee, South Penn Oil.
Fee, O. L. Jack et al.
Bing. 150, South Penn Oil 50.
Fee, Kaber & Kaber 36.
Bing. 184, Associated Producers 278.
Fee, Wm. C. Kennedy Co., 36.
Fee, South Penn Oil.
Northwestern Mineral Ex. South Penn Oil.
Fee, W. N. Hunter et al.
Bing. 212, Associated Producers.
Bing. 212, Associated Producers.
Bing. 213, Associated Producers.
P. & K. Holding Oil Corp. 919.
Bing 136. Kennedy Co. No. 4, 48.
Fee, South Penn Oil 44.
Paul Est., South Penn Oil 17.
Bing. 394, Saph & Wright.
Fee, Hazelwood Oil.
Fee, J. W. Bouton.
Bing. 533, South Penn Oil 61.
Bing. 570, South Penn Oil 95.
Bing. 582, Associated Producers 270.
Bing. 581, Associated Producers 268.
Lawton, Suhr, MacSweeney & Co. 85.
Bing. 368, Forest Oil, Inc., No. 9, 39.
Bing. 173, Kishwaukee Oil 43, 44.
Bing. 356, C. L. Wann et al 41.
Bing. 389, D. W. Daly 33.
Bing. 350, Wilson & Fitzgibbon 69.
Bing. 400, J. E. Ward 15.
Lawton, Gallup, Elder et al.
Bing. 291, Howard & McCallum 83.
Bing. 420, G. C. Grow, 25.
Rigs, 30; wells drilling, 97; total, 127.

MIDDLE FIELD

Rigs

Lot 3767, F. J. Moser 22, 23.
Osten, Rembold & Co. 3.

Wells Drilling

Neely, A. Neely & Sons 2.
McCoy, Scofield & Co. 1.
McWilliams, Johnson & Sons.
Lot 387, Pennsylvania Oil 18.
Lot 355, Pennsylvania Gas 853.
T. & W. Oil, Byers & Hawkey 48.
T. & W. Oil, A. E. & W. C. Tompsett 64.
Jennings, C. E. Carnahan 31.
Rigs, 3; wells drilling, 8; total, 11.

WEST VIRGINIA

Wells Completed

LEWIS COUNTY

Rhodes, Cayton & Co., 1 ..... gas
Snyder, Hope Gas Co., 1 ..... gas
Clark, Phila. Gas Co., 1 ..... gas
Barb, Reserve Gas Co., 1 ..... gas
Whitesell, Hope Gas Co., 1 ..... dry

HARRISON COUNTY

Linville, W. J. Johnson & Son, 1 .... gas
Milley, Hope Gas Co., 1 ..... gas
Stout, Hope C. & R. Co., 8 ..... gas
Hifner, Phila. Oil Co., 1 ..... dry
Lewis, Reserve Gas Co., 1 2
McDonald, Hope Gas Co., 1 2

MARION COUNTY

Kendall, So P. O. Co., 5 2

MONONGALIA COUNTY

Barrickman, Hope Gas Co., 2 ..... gas

WETZEL AND TYLER COUNTIES

Pettit, Phila. Oil Co., 1 5
Edgell, So. P. O. Co., 8 1
Peterson, So. P. O. Co., 40 ..... gas
Robinson-Hoge, Phila. Oil Co., 10 15

MARSHALL COUNTY

Burge, Mrs. L. & H. Co., 1 5
Logsdon, Hope C. & R. Co., 2 35
Logsdon, Hope C. & R. Co. 3 16
Yater, Carnegie Gas Co., 1 25
Campbell, Heirs, Decem Dev. Co., 3 10
Markey, U. S. Stamping Co., 1 10

DODDRIDGE COUNTY

Williams, L. W. Williams & Co. 1 10
Perine, J. B. Trainer, 1 ..... gas
Douglass, Hope C. & R. Co., 5 10
Smith, Hope C. & R. Co., 1 25
Kinney, Heirs, D. W. Nutter, 1 5
T. J. Smith, Phila. Oil Co., 3 65

RITCHIE COUNTY

Reed, Hope Gas Co., 1 ..... dry
Smith, Pgh. & W. Va. Gas Co., 3 ..... dry
Reed, Hope Gas Co., 2 ..... dry
Williams, Cosstock & Co., 1 ..... dry
Good, Carnegie Gas Co., 1 ..... dry
Sheets, Elder & Straley, 1 ..... dry
Baker, J. T. Locke & Co., 1 ..... gas
Vanhorn, C. A. Vanhorn & Co. 1 ..... gas
Zinn, Morris & Gainer, 2 ..... dry
Fisher, Hope Gas Co. 3 ..... gas
Miller, Heirs, Chemical Oil Co., 2 .... dry
Cooper, Richter Oil Co., 3 10
Reece, W. H. Jonas & Co. ..... dry
Haymond, Premier Glass Co., 3 50
Markey, H. L. McGinnis, 13 3
Toothman, Louden & Co., 1 ..... dry
Higginbotham, I. O. & G. P. Co., 1 ... 2
Jackson, Penn Royal Oil Co., 5 2
Ridgeway, Continental Oil Co., 1 10

BRAXTON COUNTY

Ramsey, So. P. O. Co., 1 5
Howell, Pgh. & W. Va., Gas Co., 1 .... dry
Carr-Howell, Pgh. & W. Va. Gas Co., 1 dry
Gerwig, W. Va. Central Gas Co., 1 .... gas
McIlwain, W. Va., Central Gas Co. 1 .. gas
Horner, Carter Oil Co., 1 ..... gas

WIRT COUNTY

Whitecotton, O. E. Grow, 15 ..... dry
Wheaton, L. E. Shuck & Co., 9 1
Donoho, W. C. Patterson 10 4

WOOD COUNTY

Allman, Dollman & Kingsbury, 2 9
Rice, Park Bowser, 1 ..... gas
Watson, G. L. Watson, 1 ..... dry

PLEASANTS COUNTY

Hammett, E. A. Ryan, 9 5
Hooper, Ellanor O. & G. Co., 1 ..... gas
Mathers, Creek Oil Co., 7 ..... gas
Dennis, Carder Oil Co., 1 1
Allen, W. H. Noland & Co., 1 ..... gas
Smith, Neely & Co., 4 ..... dry
Lamp, Neely & Co., 2 5

CALHOUN COUNTY

Maze, Southern Oil Co., 1 ..... gas
Price, Heck Oil Co., 1 ..... dry
Ball, Hope Gas Co., 1 ..... dry
Walton, Heirs, McIntosh & Miller, 2.. gas
Brown, Hope Gas Co., 1 10
Bennett, Heirs, McCall & Co., 1 ..... gas
Winemiller, Bennett & Dearcy, 1 ..... dry
Westfall, Parks & Dailey, 1 ..... dry
McDonald, Hope Gas Co., 1 5

JACKSON COUNTY

Custer, Penn Royal Oil Co., 3 1
Board, Unknown, 1 ..... dry

CLAY COUNTY

Koontz, Empire Pet. Co., 1 ..... gas

LINCOLN COUNTY

Gillenwater, Meabon & Huffman, 1 .... gas

KANAWHA COUNTY

Goshorn, Heirs, Elk Refining Co., 3 5
Baker, W. C. Kingery, 2 ..... gas
Pike, Heirs, Rashman & Staunton, 1.. gas
Adkins, Col. G. & E. Co., 1 ..... gas

PUTNAM COUNTY

Young, U. F. G. Co., 2 ..... gas
Lawson, Sovereign Gas Co., 1 ..... gas
Goode, Rashman & Staunton, 4 ..... gas

CABELL COUNTY

Markin, Aetna O. & G. Co., 1 4
Templeton, C. O. Nixon & Co., 1 .... dry
Connor, Harshbarger O. & G. Co., 1 .... gas
Barbour, Midway City Gas Co., 1 .... gas

KANAWHA COUNTY

Scott, Ohio Fuel Oil Co., 1 ..... gas
Quarrier, Owens B. & M. Co., 2 ..... gas
Dry Branch Coal Co., So. P. O. Co., 1.. gas
Black Band Fuel Co., So. P. O. Co., 2.. gas

WAYNE COUNTY

Guyandotte Land Assn. Col. G. & E. Co., 1 ..... gas
Barton, Chartiers Oil Co., 1 2

Wells completed	97
Production	362
Dry	22
Gas	37

LEWIS COUNTY

Rigs

Cole, Carl Wohine & Co., 1.

Wells Drilling

Lough, Reno Oil Co. 1.
Duncan, Moran & Duncan, 1.
Hyer Heirs, Harner & Co., 1.
Hall, McCall & Co., 1.
Rohrbaugh, Federal O. & G. Co., 1.
Hall, Mud Lick O. & G. Co., 1.
Stump, Chartiers Oil Co., 1.
Rigs, 1; wells drilling, 7; total, 8.

HARRISON COUNTY

Rigs

Talkington, Lohn & Barrett, 1.
Goodwin, So. P. O. Co., 10.

Wells Drilling

Kelly, Masters & Woodall, 1.
Albright, Hope Gas Co., 7.
Rogers, Arnett & Co., 1.
Miley, Hope Gas Co., 1.
Reed, Clarksburg L. & H. Co., 1.
Stout, N. W. O. & G. Co., 1.
Perine, Harris & Co., 3.
Rigs, 2; wells drilling, 7; total, 9.

PRESTON COUNTY

Wells Drilling

Gordon, Hope Gas Co., 1.

MARION COUNTY

Rigs

Murray, Carnegie Gas Co., 2.

Wells Drilling

Moore, Owens B. & M Co., 1.
Mary Moore, Horner Bros., 1.
Fleming, Heirs, Morgantown Oil Co., 1.
Rowand, Phila. Oil Co., 4.
Howe, Maxon O. & G. Co., 4.
Toothman, C. A. Snodgrass, 1.
Toothman, Carnegie Gas Co,. 1.
Fleming, Davenport O. & G. Co., 1.
Rigs, 1; wells drilling, 8; total, 9.

MONONGALIA COUNTY

Wells Drilling

Haught, Wm. Haught, 9.
Wildman, So. P. O. Co., 31.
Lemley, Heirs, Moore Tex O. Co., 1.
Price, Heirs, Hope C. & R. Co., 1.
Tennant, So. P. O. Co., 5.
Wright, Randall Gas Co., 1.
Moore, Carnegie Gas Co., 1.
S. Moore, Carnegie Gas Co., 1.
Yager, Hope C. & R. Co., 1.
Rigs, 0; wells drilling, 9; total, 9.

WETZEL & TYLER COUNTIES

Rigs

Antill, Johns Gas Co., 5.
McCluskey, Heirs, Waynesburg Gas Co., 1.
Evans, Decem Dev. Co., 1.
Huff, Cook Pet. Co., 1.
Smith, Hope C. & R. Co., 1.
McDeffitt, Mfrs. L. & R. Co., 2.
Connor, Hill Top O. & G. Co., 1.
Gornell, Engle & Tennat, 1.
Duty, Hope C. & R. Co., 2.

Wells Drilling

Ornduff, Littleton Gas Co., 1.
Henderson, Carnegie Gas Co., 2.
Strosnider, Boundy Bros., 1.
Steele, Silver Hill Oil Co., 1.
Morgan, T. C. Ruwa, 2.
Heslep, L. L. Gorrell, 1.
Robinson, So. P. O. Co., 23.
Stephens, So P. O. Co., 10
Ullem, Mfrs. L. & H. Co., 3.
Thorn, Morgan Bros. & Co., 1.
Lung, Hope C. & R. Co., 4.
Rigs, 9; wells drilling, 11; total, 20.

MARSHALL COUNTY

Rigs

Rine, Mfrs. L. & H. Co., 2.
Pyles, Mfrs. L. & H. Co., 2.

Wells Drilling

Clauston, G. B. Patterson, 2.
Otte & Sons, C. P. Wasmuth, 2.
Markey Decem Dev. Co., 2.
McCanaughey, Mfrs. L. & H. Co., 2.
Britton, Mfrs. L. & H. Co., 2.
Rigs, 2; wells drilling, 5; total, 7.

DODDRIDGE COUNTY

Rigs

Perine, Pigott & Shinn, 1.
Burbridge, W. D. Gribble & Co., 1.
Roberts, Keystone O. & G. Co., 4.
Underwood, Carter Oil Co., 1.
Hudson, Heirs, Continental Oil Co., 3.

Wells Drilling

Dotson, I. O. & G. P. Co., 2.
Britton, I. O. & G. P. Co., 2.
J. Sotson, Carter Oil Co., 1.
Ellifritt, Hope C. & R. Co., 5.
Maxwell, Columbian Carbon Co., 52.
Stout, Carter Oil Co., 53.
Kelly, Carnegie Gas Co., 1.
Adams, Engle Run Oil Co., 2.
R. Kelly, Trainer & Travis, 1.
Wright, Hope C. & R. Co., 1.
Underwood, Pentz Oil Co., 1.
Smith, Clifton Oil Co., 2.
T. J. Smith, Phila. Oil Co., 4.
Rigs, 5; wells drilling, 13; total, 18.

RITCHIE COUNTY

Rigs

Leggett, Elder & Straley, 2.
Somerville, D. M. Heckert & Co., 1.
Lemon, So. P. O. Co., 41.
Lambert, So. P. O. Co., 9.
Gregg, Heirs, So. P. O. Co., 1.
W. Va. Tract, Whitwood Oil Co., 29.
Pope, E. E. Pope, 2.
Rymer, Hughs River Oil Co., 1.
Null, T. A. & E. P. Mellon, 6.
Brown, Riddle & Co., 1.

Wells Drilling

Hall, Carnegie Gas Co., 1.
Somerville, Carnegie Gas Co., 1.
Bartlett, Hope Gas Co., 1.
Wright, Hope Gas Co., 1.
Prather, Smith & Co., 1.
Mason, Hope Gas Co., 1.
Lawrence, Hays & Roberts, 4.
Carnes, Hope Gas Co., 1.
W. Va. Tract, D. C. Reece & Co., 29.
Jonas, Coss O. & G. Co., 3.
West, Big Sand Oil Co., 1.
Marsh, Pgh. & W. Va. Gas Co., 5.
McCullough, Stephens Drilling Co., 1.
Doak-McCullough, Thos. Lambert, 1.
Nutter, Phila. Oil Co., 1.
Carpenter, J. E. Verlon & Co., 1.
Scott, Zinn Broadwater, 1.
Prince, Cairo Oil Co., 8.
Marshall, Hope Gas Co., 1.
Burke, Burke O. & G. Co., 5.
Bradley, Hope C. & R. Co., 4.
Adams, Adams Oil Co., 3.
Fox, Vincent & Co., 1.
Rigs, 10; wells drilling, 24; total, 34.

GILMER COUNTY

Rigs

Goff, So. P. O. Co., 8.
Hardman, So. P. O. Co., 6, 7.
Ellis, So. P. O. Co., 8.
Bush-Holt, So. P. O. Co., 2.
Bennett, Heirs, Hope Gas Co., 1.
Fisher, Hope Gas Co., 1.
Keith, Keith & Co., 1.

Wells Drilling

Woofter, Pgh. & W. Va. Gas Co., 1.
Gainer, Pgh. & W. Va. Gas Co., 1.
Woodard, Pgh. & W. Va. Gas Co., 1.
Ward, Hope Gas Co., 1.
Talbot, Carter Oil Co., 1.
E. M. Talbot, Carnegie Gas Co., 2
Rigs, 8; wells drilling, 6; total, 14.

BRAXTON COUNTY

Wells Drilling

Ramsey, Star Basin Oil Co., 3.
Stout, P. K. Oil Co., 2.
Hemrick, Hazel-Atlas Gas Co., 1.

WIRT COUNTY

Wells Drilling

Daubenspeck, A. F. Daubenspeck, 3.
Honoho, W. C. Patterson, 16.

WOOD COUNTY

Rigs

King, So. P. O. Co., 9.

Wells Drilling

Stone, Stephens Drilling Co., 2.
McAtee, C. S. Smith, 5.
Ogdin, Hoglan Oil Co., 6.
Kellar, Henderson Oil Co., 14.
Ross, W. G. Decker, 1.
Hendershot, John Shore, 1.
McTaggart-Henderson, M. W. Larkin & Co., 4.
Rigs, 1; wells drilling, 7; total, 8.

PLEASANTS COUNTY

Wells Drilling

Westbrook, Bradley & Co., 2.
King, Hope C. & R. Co., 1.
Riggs, Riggs-Hood O. Co., 2.
McCullough, Stephens Oil Co., 1.

ROANE COUNTY

Rigs

Larch, O. F. O. Co., 19.
Craig, So. P. O. Co. 19.

Wells Drilling

Coe, G. L. Cabot, 1.
Craig, So. P. O. Co., 10.
Nichols, U. F. G. Co., 1.
McDade, Carter Oil Co., 1.
Smith, Carter Oil Co., 1.
Young, J. Richardson & Co., 1.
Rigs, 2; wells drilling, 6; total, 8.

CALHOUN COUNTY

Rigs

Huffman, Chartiers Oil Co., 5.
McCulty, Hope Gas Co., 1.
Bell, Hope Gas Co., 1.
Gainer, Hope Gas Co., 1.

Wells Drilling

Davis, Hope C. & R. Co., 2.
Rowand, Thos. Crawley, 1.
Pettit-Brown, M. F. Crawley, 1.
Johnson, Hope Gas Co., 1.
Burrows, Hope Gas Co., 1.
Rigs, 4; wells drilling, 5; total, 9.

JACKSON COUNTY

Wells Drilling

McCoy, Henderson Oil Co., 1.

CLAY COUNTY

Rigs

Goshorn Tract, Shelton Gas. Co., 17.
King, Heirs, White Sand Oil Co., 2.

Wells Drilling

Samples, Chalmers O. & G. Co., 9.
Cox, Virginia G. & O. Co., 28.
Thompson Land Co., Thompson Oil Co., 3
Jarvis, U. F. G. Co., 1
Rigs, 2; wells drilling, 4; total, 6.

LINCOLN COUNTY

Rigs

Miles, Carter Oil Co, 1.
Adkins, Orlando O. & G. Co., 3.

Wells Drilling

Cummins, Roy & McComas, 2.
T. Adkins, Superior Gas Co., 1.
Dick, Laurel Dev. Co., 1.
S. E. Adkins, Superior O. & G. Co., 1.
Pack, Cambridge Gas Co., 2.
W. Adkins, Roy & McComas, 1.
Huntington Dev., Huntington Dev. Co., 1.
Stowers, Columbia Gas Co., 1.
Woodall-Stowers, C. C. Wolfe, 1.
Madden, Moore-Rook O. & G. Co., 1.
Barrett, Ray O. & G. Co., 1.
Mahone, Foote O. & G. Co., 1.
Rigs, 2; wells drilling, 12; total, 14.

PUTNAM COUNTY

Wells Drilling

Sutiff, St. Albins Gas Co., 1.

CABELL COUNTY

Wells Drilling

Wallace, Aetna O. & G. Co., 4.
Spenagle, Consolidated O. & G. Co., 1.
Johnson, Harshbarger O. & G. Co., 1.
Alexander, Ohio Fuel Oil Co., 1.
Rucker, Monicel Gas Co., 1.
Childress, Monicel Gas Co., 1.

BOONE COUNTY

Rigs

Williams Coal Co., Pure Oil Co., 262.

Wells Drilling

Williams Coal Co., Pure Oil Co., 212.
B. K. L. & M. Co., Owens B. & M. Co., 7.
County Poor Farm, Owens B. & M. Co., 1.
Pryor-Allen, Owen B. & M. Co., 8.
Walker, Owens B. & M. Co., 1.
Chambers, Owens B. & M. Co., 1.
Bedford, Owens B. & M. Co., 5.
Cassingham, Owens B. & M. Co., 3.
Curry, U. F. Gas Co., 1.
Curry, U. F. Gas Co., 221.
R. P. & L. Tract, U. F. Gas Co., 4.
R. P. & L. Tract, U. F. Gas Co., 11.
Rigs, 1; wells drilling, 12; total, 13.

KANAWHA COUNTY

Rigs

Roane Land Co., Allegheny O. & G. Co., 2.
G. K. L. & C. Co., Owens B. & M. Co., 19.
Imperial Coal Co., U. F. G. Co., 31.
Vickers, Columbia Carbon Co., 1.
Hall, Owens B. & M. Co, 1.

Wells Drilling

Morton, Empire Pet. Co., 5.
G. K. L. Tract, Owens B. & M. Co., 16.
Imperial Coal Co., U. F. G. Co., 32.
Rucker, U. F. G. Co., 1.
Stumpy, U. F. G. Co., 2.
Devert, U. F. G. Co., 1.
Lipps, U. F. G. Co., 1.
Osborne, U. F. G. Co., 2.
Donohue, U. F. G. Co., 1.
Dodd, U. F. G. Co., 1.
Osborne, Cosmos Carbon Co., 15.
Rigs, 5; wells drilling, 11; total, 16.

LOGAN COUNTY

Wells Drilling

Lawson, Ohio Fuel Oil Co., 1.

RALEIGH COUNTY

Rigs

Rowland Land Co., Fisher Oil Co., 4.

MINGO COUNTY

Wells Drilling

Clasterman Est., Public Gas Corp., 7.

SOUTHWEST PENNSYLVANIA

Wells Completed

WASHINGTON COUNTY

Harvey, Carnegie Gas Co., 1 ..... gas

ALLEGHENY COUNTY

Ramsey, Purdy Bros. & Co., 1 ..... gas
Elliott, Phillips G. & O. Co., 2 ..... dry
Kreese, Pinkerton & Co., 1 ..... dry
O'Neill, Wm. Steer & Co., 1 ..... gas
Holman, Scott O. & G. Co., 1 5
Hicks, Black Bros. & Co., 2 2
Musgrave, J. W. McCormick, 1 1

BEAVER COUNTY

McHaffie, Freshwater O. & G. Co., 3.. 1
Covert, Service Ck. O. & G. Co., 9.... dry
McDevitt, Edwards Oil Co., 7 1

GREENE COUNTY

D. Garrison, J. L. Garard & Co., 29.. dry
Lemley, Fox O. & G. Co., 3 ..... gas
H. Lemley, Carnegie Gas Co., 1 ..... gas
F. Lemley, Carnegie Gas Co., 1 ..... gas
J. Fox, Martin O. & G. Co., 1 ..... gas
Freeland, H. D. Freeland, 1 ..... gas

Wells completed	17
Production	10
Dry	4
Gas	7

WASHINGTON COUNTY

Rigs

Berry, Grayson & Parry, 1.

Wells Drilling

Lutton, New O. & G. Co., 1.
Cavotory, W. F. Dallmyer, 1.
Andrews, Est., Mfrs. L. & H. Co., 2.
Buckhanan, E. H. Tague, 1.
Day N. G. Co. of W. Va., 2.
McCarty, W. Bethlehem Gas Co., 1.
T. Day, Carnegie Gas Co, 1.

ALLEGHENY COUNTY

Rigs

Palman, Heirs, Amer. N. G. Co., 1.
McKinney, M. L. Williams, 2.
Hillman, Pikerton & Co., 1.
Hell, Fisk & Co., 2.
Huck, Local Parties, 1.
Wattenpool, Leidecker & Co., 1.

Wells Drilling

McAlister, Morse O. & G. Co., 1.
Randolph, Houston & Co., 2.
Price, Heirs, O. Miller & Co., 4.
Sipple, Black Bros. & Co. 1.
Pgh. Coal Co., S. D. Robinson, 2
Chuff, E. E. Laughner & Co., 2

GREENE COUNTY

Rigs

Kennedy, Shannon Run O. & G. Co., 2.
Stephens, Phila. Oil Co., 1.
Henderson, Carnegie Gas Co., 1.
J. Lemley, Carnegie Gas Co., 1.
Kent, Peoples Gas Co., 1.
Rutan, Carnegie Gas Co., 1.
Brown, Brown O. & G. Co., 1.
Gardner, Mfrs. L. & H. Co., 1.
Caseman, Caseman O. & G. Co., 1.

Wells Drilling

Smith, Fred Garrison, 1.
D. Fox, Peoples Gas Co., 1.
Couree, Carnegie Gas Co., 2.
Lindsay-Howard, Shannons Run O. & Gas Co., 1.
E. Lemley, Phila. Oil Co., 1.
Hadley, Carnegie Gas Co., 2.
Parsons, Carnegie Gas Co., 2.
Keys, N. G. Co., of W. Va., 1.
Muckle, Waynesburg Gas Co, 1.
Smith, Chas. Sutton & Co., 2.
Throckmorton, Carnegie Gas Co, 1.
Null, Walter Null & Co., 1.
Earnest, McCracken & Co., 1.

WESTMORELAND COUNTY

Wells Drilling

Seger Bros., Peoples Gas Co., 1.
Booth-Flinn, Peoples Gas Co., 2.
Rigs 16; wells drilling 28; total 44.

SOUTHEASTERN OHIO

MONROE COUNTY

Wells Completed

Knowlton, Harry Binegar & Co., 11.. dry
West, Simmons Oil Co., 1 ..... dry
Connor, Simmons Oil Co., 1 ..... dry

Weckbacher, Simmons Oil Co. 1..... dry
Haryshorn, C. R. Mann & Co., 1..... 2
Scott, Sprague O. & G. Co., 4..... 3
Highman, Williams & Ritchie, 4..... 10

PERRY COUNTY

Henry, Henry Bros., 21 1
Donohue, Heirs, Marshall & Marshall, 10 5
Meiser, Carter Oil Co., 7..... 5
Noll, McDecker O. Co., 1..... dry
Calkins, Calkins O. & G. Co., 2..... 2

HOCKING COUNTY

Stone, Preston Oil Co., 12..... 8
McClain, Puphrer Prod. Co., 6..... 5
Kennard, Sumit Oil Co., 5..... 35
Lambert, Chartiers Oil Co., 1..... 4
S. C. C. Co., S. C. C. Co., 115..... 65

LICKING COUNTY

Cooperrider, Midland Oil Co., 2..... 35
Watts, Carter Oil Co., 4..... 105
Kroft, Mideast Oil Co., 1..... gas
Stevens, Ralph Bros., 2..... 1
Irwin, Spindler & Donalson, 1 3
Colterman, Dexter O. & G. Co., 3..... 2
Haynes, E. H. Everett Co., 2..... 40
Taylor, W. W. & A. T. Wehrle, 2..... 3
Lee, W. W. & A. T. Wehrle, 4 ..... gas
McCelland, W. W. & A. T. Wehrle, 1.. dry
Barnes, W. W. & A. T. Wehrle, 3..... 2
Watson, W. W. & A. T. Wehrle, 6... 2
Stevens, Moore & Adams, 1..... 3

COSHOCTON COUNTY

Horner, Pure Oil Co., 1..... dry
Dugan, Ark. Fuel O. Co., 7..... 8

HOLMES COUNTY

Miller, Pure Oil Co., 1..... 25
Smith, C. O. G. Co., 1..... dry
Allison, East Ohio Gas Co., 1..... gas
Uhl, East Ohio Gas Co., 2..... 15
Galley, East Ohio Oil Co., 2..... 25
Keiser, Pure Oil Co., 1..... 20
Keiser, Croup & Martin, 7..... 2

FAIRFIELD COUNTY

Morehead, A. J. Colgan & Co., 1..... dry
Wycoff, Chestnut Oil Co., 3..... gas
Holliday, Rushville O. & G. Co., 2..... gas
McKinney, Jones & Co., 1..... 5
Hancock, Marion Snyder & Co., 8..... 2
Bebout, Snyder & Carson, 15..... 2
Baird, Preston Oil Co., 2..... 2
Ward, Rocky River Oil Co., 1..... dry
Snively, East Ohio P. & R. Co., 13... 4
Parker, S. J. Harper & Co., 10..... 2
Haynes, E. C. Merry & Co., 1..... gas
Walters, Earl Stephens & Co., 1..... dry
Boyd, Chas. Nott & Co. ,1..... dry
Miller, E. L. Hutcheson & Co., 8..... dry
Devoll, Cain-Devoll Oil Co., 8..... 1
Boyd, Luebbe Oil Co., 7..... 1
Boyd, Luebbe Oil Co., 8..... 3
Cisler, Ronshausen & Co., 7..... dry
Shafer, S. J. Harper & Co., 1..... dry
Shafer, S. J. Harper & Co., 2..... dry
Fogel, W. Clark & Co., 1..... dry
Wopler, Porter & Co., 1..... 1
Shafer, Robinson & Metcalf, 1..... 2
Schott, Casper Syhott & Co., 2..... gas

MEIGS COUNTY

Holter, Pure Oil Co., 2..... 3
Hallman, R. G. Gillespie, 1..... 3
Cross, Brocalsa Chem. Co., 1..... 3

ATHENS COUNTY

Baker, Neely, Murray & Co., 2..... 10
Baker, Neely, Murray & Co., 3..... 10

MORGAN COUNTY

Swyster, Sun Oil Co., 2..... 30
Davis Oil Co., Sun Oil Co., 1 35
Davis Oil Co., Sun Oil Co., 2..... 50
Barringer, Pure Oil Co., 4..... 30
Barringer, Pure Oil Co., 5..... 40
Barringer, Pure Oil Co., 6 40
Bell, Pure Oil Co., 1..... 35
Christman, Pure Oil Co., 3..... 50
Crider, Daily Oil Co., 1..... 12
Boyce, Heirs, Nash, Keller & Co., 3..... 5
Stutes, Pure Oil Co., 4..... 3
Spring, Swingle O. & G. Co., 1..... dry

WASHINGTON COUNTY

Schuman, H. Cooper & Co., 3..... 4
Knowlton, John Graw & Co., 1..... dry
Wick, O. S. Reckard & Co., 1..... dry
Ring, Warden Drilling Co., 1..... gas
Archer, Carter Oil Co., 2..... gas
Rosenbush, Otto Becker & Co., 5..... dry
Mallett, Earl Stephens, 2..... 1
Devoll Bros., Luckey Oil Co., 1..... 2
Wagner, S. J. Bogard & Co., 1..... dry
Decker, J. T. Dillon, 8..... 2
Dixon, Walter Wickens & Co., 1..... dry
Edgerton, Metcalf & Co., 12..... 3
Daniels, W. F. Meister, 18..... 1
Gross, Waxler & Metcalf, 5..... 1
Haas, G. McClure & Co., 12..... 1

CARROLL COUNTY

Miskell, Miller Lees O. & G. Co., 10.... 10

COLUMBIANA COUNTY

Davidson, John Davidson, 3..... dry

Wells completed	91
Production	825
Dry	23
Gas	8

MONROE COUNTY
Wells Drilling

English, Carter Oil Co., 5.
Cline, W. S. Laufer & Co., 2.
Bode, H. L. Timblin & Co., 2.
Cronin, Antioch Prod. Co., 1.
Scott, J. C. Carner & Co., 2.
Rigs, 0; wells drilling, 5; total, 5.

PERRY COUNTY
Rigs

Paxton, Holliday O. & G. Co., 3.
Burns, Heirs, Edgar Denman & Co., 5.
Welch, Southern Oil Co., 2.
Rarrick, Goble O. & G. Co., 6.
Wells Drilling
Rarrick, Carter Oil Co., 6.
Calkins, Calkins O. & G. Co., 3.
Rigs, 4; wells drilling, 2; total, 6.

HOCKING COUNTY
Rigs

Sadler, Preston Oil Co., 1.
Devore, Preston Oil Co., 3.
Lick Run C. & C. Co., E. L. Stephens, 2.
Johnston, Griffin Prod. Co., 6.
H. V. P. Co., Chartiers Oil Co., 189.
Coe, Evans O. & G. Co., 2.
Wells Drilling
Thrush, Gordon Oil Co., 1.
Sundy C'k. Co., S. C. C. Co., 118.
Hamilton Bros., Preston Oil Co., 14.
H. V. Prod. Co., Chartiers Oil Co., 190.
Tracy, Est., Kachelmacher Est., 12.
Sunday C. C. Co., Sunday C. C. Co., 116, 119.
Woodard, Preston Oil Co., 4.
Haller, O. F. S. Co., 1.
Rigs, 6; wells drilling, 9; total, 15.

LICKING COUNTY
Rigs

Burgess, Flint Ridge O. & G. Co., 1.
Rector, O. F. S. Co., 1.
Somerville, Carter Oil Co., 2
Vanderbark, Carter Oil Co., 2.
Wells Drilling
Bowers, Midland Oil Co., 3.
Richter, Central Ohio Gas Co., 1.
Bowers, Glenn Oil Co., 1.
Armstrong, Flint Ridge O. & G. Co., 5.
Melick Bros., Atha Oil Co., 10.
Ardry, Neely-Clover Co., 1.
George, Mideast Oil Co., 1.
Wildman, Mideast Oil Co., 1.
County Fair Grounds, O. F. S. Co., 1.
Deflinger, Carter Oil Co., 1.
Smith, Pure Oil Co., 1.
Gorman, Wehrle Bros., 1.
Darnes, Wehrle Bros., 4.
Harris, Wehrle Bros., 1.
Zortman, Wehrle Bros., 1.
Rigs, 4; wells drilling, 15; total, 19.

MUSKINGUM COUNTY
Wells Drilling

Shaw, Pure Oil Co., 3.
Baker, Pure Oil Co., 2.

COSHOCTON COUNTY
Rigs

Wolford, Spindler, Doulan & Co., 4.
McKee, Spindler, Dolan & Co., 4.
Moore, Carter Oil Co., 1.
Ashcraft, Pure Oil Co., 3.
J. Ashcraft, Pure Oil Co., 2.
Crawford, Pure Oil Co., 6, 7.
Wells Drilling
Norris, Pure Oil Co., 9.
Ashcraft, Leonard O. & G. Co., 4.
Phillips, Carter Oil Co., 1.
Dugan, Ark. Fuel Oil Co., 6.
Davidson, O. F. S. Co., 2.
Rigs, 7; wells drilling 5; total, 12.

HOLMES COUNTY
Rigs

Schwier, Central Ohio Gas Co., 1.
Allison, Central Ohio Gas Co., 1.
Leppla, Central Ohio Gas Co., 1.
McCullough, East Ohio Gas Co., 1.
Uhl, East Ohio Gas Co., 3, 4.
Franks, Carter Oil Co., 1.
Hall, Pure Oil Co.
Carpenter, Pure Oil Co., 2.
Keiser, Croup & Martin, 8.
Wells Drilling
Waltman, Carter Oil Co., 1.
Marquis, Pure Oil Co., 1.
Robinson, Ohio Oil Co., 1.
Snyder, Central Ohio Gas Co., 1.
Korns, Central Ohio Gas Co., 1.
Connor, Central Ohio Gas Co., 1.
Barnes, Eckstein & Co., 1.
Geib, Ark. Fuel Oil Co., 1.
Smith, Cumberland Pet. Co., 1.
Smith, East Ohio Gas Co., 1, 2.
Johnson, East Ohio Oil Co., 2, 3.
Forgy, East Ohio Oil Co., 3.
Watt Central Ohio Gas Co., 1.
Uebel, Pure Oil Co., 2.
Addy, O. F. S. Co., 1.
Rankin, O. F. S. Co., 1.
Keith, Keith Bros., 1.
Rigs, 10; wells drilling, 19; total, 29.

FAIRFIELD COUNTY
Wells Drilling

Everett, Nypenno Oil Co., 1.
McCandlish, Blume O. & G. Co., 2.
Kennedy, Montana O. & G. Co., 7.
Hoover, A. H. Heisey Co., 1.
Morrow, Clinton O. & G. Co., 1.

KNOX COUNTY
Rigs

Wolf, A. H. Heisey Co., 1.
Wells Drilling
Bebout, Snyder & Carson, 16.
Frazee, Preston Oil Co., 1.
Scholes, East Ohio P. & R. Co., 1.
Rigs, 1; wells drilling, 3; total, 4.

NOBLE COUNTY
Rigs

Murphy, O. F. S. Co., 3.
Wells Drilling
Westcott, E. Stevens & Co., 1.
Davis, Patton & Co., 3.
McWilliams, Kemp & Co., 1.
Rigs, 1; wells drilling, 3; total, 4.

MEIGS COUNTY
Wells Drilling

Hamm, Pure Oil Co., 1.
Roush, C. W. Eagler, 1.
Cornell, O. F. S. Co., 2.
Crider, E. W. Thornily & Co., 1.
Rigs, 0; wells drilling, 4; total, 4.

ATHENS COUNTY
Wells Drilling

Alderman, Neely, Murray & Co., 1
Allen, Townsend O. & G. Co., 2.
Whaley, Roush & Co., 1.
Matheny, Parkersburg O. & G. Co., 1.
Raridan, Lupher, Son & Co., 1.
Culler, Logan Oil Co., 1.
Varity, Edmondson & Co., 1.
Haisington, Clark Oil Co., 1.
Rigs, 0; wells drilling, 8; total, 8.

MORGAN COUNTY
Rigs

Barringer, Pure Oil Co., 7, 8.
Wells Drilling
Swyster, Sun Oil Co., 3.
Rigs, 1; wells drilling, 1; total, 2.

WASHINGTON COUNTY
Rigs

Herlan-Mendenhall, Bank of Cario, 2.
Dana, O. S. Reckard & Co., 4.
Rosenbush, Otto Becker & Co., 6.
Wells Drilling
Amos, E. Hill & Co., 2.
Hadley, Jas. Hadley & Co., 2.
Heslop, Beeson Bailey & Co., 4.
Archer, C. E. Smith & Co., 4.
Hendershot, J. S. Archer, 2.
Blazer, Heirs, J. T. Campbell, 1.
Burger, G. Goldish & Co., 6.
Reed, E. H. West & Co., 1.
Weymer, Weymer Farm Oil Co., 3.
Edgerton, Metcalf & Co., 18.
Greves, W. F. Greves, 2.
Bate, F. L. Johnson, 1.
Kerr, Ohio Glenn O. Co., 1.
Rigs, 3; wells drilling, 13; total, 16.

JEFFERSON COUNTY
Wells Drilling

Cox, W. E. Burns & Co., 2.

CARROLL COUNTY
Wells Drilling

Brant, Miller-Lees O. & G. Co., 2.
Buchannan, Miller & Co., 3.

BELMONT COUNTY
Wells Drilling

Shepherd, D. W. Powell & Co., 2.
Henderson, Disert O. & G. Co., 2.

CENTRAL OHIO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Licking	0	0	0	0	0	1	1
Knox	5	14	0	2	2	3	5
Ashland	5	0	2	3	3	8	11
Medina	5	0	2	3	4	6	10
Lorain	1	0	0	1	1	4	5
Wayne	8	21	0	6	10	25	35
Richland	2	0	0	2	0	3	3
Hocking	2	0	1	1	4	1	5
Holmes	5	135	1	1	6	18	24
Coshocton	0	0	0	0	2	1	3
Jackson	0	0	0	0	3	3	6
Athens	4	0	0	4	0	9	9
Meigs	0	0	0	0	3	0	3
Cuyahoga	0	0	0	0	0	2	2
Crawford	0	0	0	0	0	1	1
Summitt	0	0	0	0	0	3	3
Total July..	37	170	6	23	38	88	126
Total June..	24	91	0	19	50	81	131
Difference ..	13	79	6	4	12	7	5

KNOX COUNTY
Wells Completed

Jefferson, J. M. Lower, East Ohio Gas 3 ..... gas
Brown, John Snively, East Ohio Gas, 12 5
John Snively, East Ohio Gas Co., 13.. 4
Clay, B. F. Bald, Logan Gas, 5..... 5
Walter Grief, Bell Bros., 1..... gas

Wells completed	5
Oil wells	3
Production, oil	14
Gas	2

ASHLAND COUNTY

Hanover, Geo. Carnagy, Logan Gas, 1.. dry
Fred Feichter, Logan Gas, 2..... gas
Perry Black, Logan Gas, 1..... gas
Orange, Wm. Monteith, Logan Gas, 4.. dry
Wm. Monteith, Logan Gas, 5..... gas

Wells completed	5
Dry	2
Gas	3

MEDINA COUNTY

Litchfield, J. E. Kountz, Logan Gas, 1 gas
Lafayette, W. M. Rudes, Ohio Fuel Gas, 1 ..... gas
Westfield, Millie Albert, Daugherty Bros., 1 ..... dry
York, John Morelock, Logas Gas, 1..... dry
Wm. Harding, Logan Gas Co., 1..... gas

Wells completed	5
Dry	2
Gas	3

LORAIN COUNTY

Grafton, W. Pfeifer, Logan Gas, 1..... gas

WAYNE COUNTY

Wayne, Christ Schann, Logan Gas, 1.. gas
Plain, J. W. Horn, Logan Gas, 1.... gas
Cannan, Eward Betts, Logan Gas, 1.. gas
Siemons, Daugherty Bros., 2..... gas
T. Fike, Geo. Gertenslager & Co., 3.. 5
F. A. & M. Snell, Arthur & Mills, 1 gas
J. M. Wiles, Creston Gas, 2..... gas
Daniel Wiles, Butler Bros., 1..... 16

Wells completed	8
Oil wells	2
Production, oil	21
Gas	6

RICHLAND COUNTY

Cass, Dr. Noble, Greenwich G. & O., 6 gas
Black, Bricker Bros., 1..... gas

Wells completed	2
Gas	2

HOCKING COUNTY

Benton, A. L. Unger, Logan Gas, 4.... gas
C. H. Rathbone, Logan Gas, 2..... dry

Wells completed	2
Dry	1
Gas	1

HOLMES COUNTY

Monroe, C. H. Smith, Central Ohio Gas 1 ..... dry
Jas. Allison, East Ohio Gas, 1..... gas
Hardy, W. H. Uhl, East Ohio Gas, 2.... 20
George Galley, East Ohio Gas, 2.... 40
Prairie, Wm. H. Miller, Pure Oil, 1.... 75

Wells completel	5
Oil wells	3
Production, oil	135
Dry	1
Gas	1

ATHENS COUNTY

Carthage, Arthur Cole, Logan Gas, 3, 4 gas
E. Bailey, Jay O. & G., 2..... gas
Rome, O. F. & H. Davis, H. W. Leeper & Co., 1..... gas

Wells completed	4
Gas	4

LICKING COUNTY
Wells Drilling

Union, Leonard Rees, Logan Gas, 1.

KNOX COUNTY
Rigs

Jefferson, J. D. Greer, East Ohio Gas, 1.
Brown, Allen Scholes, East Ohio Gas, 1.
Wells Drilling
Jefferson, Wm. Bailes, East Ohio Gas, 2.
Bruce Hobbs, Upham Gas, 2.
Brown, J. J. & S. Haire, Upham Gas, 3.
Rigs, 2; wells drilling, 3; total, 5.

ASHLAND COUNTY
Rigs

Hanover, Geo. Carnagy, Logan Gas, 2.
Howard Bookman, Logan Gas, 1.
Orange, Jacob Singer, Logan Gas, 1.
Wells Drilling
Hanover, J. L. Sellers, Ohio Fuel Gas, 1.
Fred Feichter, Logan Gas, 3.
Vermillion, C. E. Ritchie, Logan Gas, 1.
Mohican, Mart Zimmerman, Logan Gas, 1.
G. W. Black, Logan Gas, 1.
Orange, Wm. Monteith, Logan Gas, 6.
E. W. Brown, Logan Gas, 1.
Greene, Martha Bowen, Logan Gas, 1.
Rigs, 3; wells drillings, 8; total, 11.

MEDINA COUNTY
Rigs

Harrisville, Agie E. Daniels, Ohio Fuel Gas, 1.
Westfield, Jane Smith, Logan Gas, 1.
York, W. C. Stillwater, East Ohio Gas, 1.
W. H. Dedrick, Dempsey & McGrath, 1.
Wells Drilling
Liverpool, Chas. Frambaugh, Wiser Oil, 1.
Litchfield, Frank Walter, Logan Gas, 1.
John Schultz, Logan Gas, 1.
John Knaph, East Ohio Gas, 1.
York, Geo. L. Morelock, Logan Gas, 2.
Guilford, E. G. Kuhn, Central Ohio Gas, 1.
Rigs, 4; wells drilling,6; total, 10.

LORAIN COUNTY
Rigs

Grafton, C. C. Schwartz, Ohio Fuel Gas, 1.
Wells Drilling
Grafton, H. B. Belden, East Ohio Gas, 1.
Fred Klinect, Logan Gas, 1.
Wm. Steizer, Burton, Morgan & Stephens, 1.
Columbia, Clara J. Elder, Ohio Fuel Gas, 1.
Rigs, 1; wells drilling, 4; total, 5.

WAYNE COUNTY
Rigs

Congress, J. E. Meeker, Logan Gas, 1.
Wayne, J. Wasson, Ohio Fuel Gas, 1.
Plain, J. W. Horn, Logan Gas, 2.
Wm. Baird, Logan Gas, 1.
E. Ely, Logan Gas, 1.
Cannan, T. A. Armstrong, Logan Gas, 1.
V. C. & Cora Bowman, Logan Gas, 2.
R. & O. Gliern, Ohio Fuel Gas, 1.
S. Wonsettler, Ohio Fuel Gas, 2.
S. Whitmore, Baker Bros., 2.
Wells Drilling
Wooster, Frank Miller, Ohio Oil, 1.
Peter Shelly, Ohio Oil, 3.
Jas. Snyder, Ohio Oil, 1.
Chas. Haupert, Ohio Oil, 1.
Weldless Tool, Earl Strock, 2.
Chippewa, H. Steiner, East Ohio Gas, 1.
Milton, E. L. Steiner, East Ohio Gas, 1.
Green, D. Remseyer, Logan Gas, 1.
Wayne, S. A. Showalter, Logan Gas, 1.
M. V. Caskey, Logan Gas. 1.
Frank Pressler, Logan Gas, 3.
Chas. Pressler, Ohio Fuel Gas, 2.
Plain, W. M. Gill, Logan Gas, 2.
Leban Funk, Logan Gas, 1.
Cannan, U. A. Russell, Logan Gas, 2.
E. T. Kissinger, Logan Gas, 2.
I. N. Hawks, Logan Gas, 1.
L. E. Wiles, Logan Gas, 2.
Wm. S. Smith, Ohio Fuel Gas, 2.
J. B. Bowers, Ohio Fuel Gas, 2.
S. J. Hartzler, Ohio Fuel Gas, 1.
A. W. Latimer, Arthur & Mills, 2.
A. L. Hossington, E. R. Carmony, 1
F. A. & M. Snell, Daugherty Bros, 1
G. Reader, Bert Harder & Co., 3.
Rigs, 10; wells drilling, 25; total 35.

RICHLAND COUNTY
Wells Drilling

Cass, Noss, Finney & Co., 1.
Dr. Noble, Greenwich G. & O., 7.
Black, Bricker Bros., 2.
Wells drilling, 3.

HOCKING COUNTY
Rigs

Benton, Vic D. Barkley, Ohio Fuel Gas, 1.
John Vorhes, Ohio Fuel Gas Co., 1.
Woodard & Lytle, Logan Gas, 1.
Minnie Allen, Logan Gas, 1.
Wells Drilling
Benton, J. L. Mauk, Logan Gas, 5.
Rigs, 4; wells drilling, 1; total 5.

HOLMES COUNTY
Rigs

Monroe, Ben Roach, Central Ohio Gas, 1.
Thos Allison, Central Ohio Gas, 1.
McCullough, East Ohio Gas, 1.
Hardy, Jac. Uhl, East Ohio Gas, 3, 4.
Melissa Gambier, East Ohio Gas, 1.
Wells Drilling
Monroe, S. R. Snyder, Central Ohio Gas, 1.
Oscar Korns, Central Ohio Gas, 1.
John Schwier, Central Ohio Gas, 1.
E. E. Connor, Central Ohio Gas, 1.
Wm. A. Smith, East Ohio Gas, 1, 2.
Gil Johnson, East Ohio Gas, 2, 3.
Chas. Barnes, Klise-Eckstein-McCann, 1.
W. H. Geib, Arkansas Fuel Oil, 1.
Wm. A. Smith, Cumberland Pet., 1.
Hardy, Wm. Watts, Central Ohio Gas, 1.
J. R. Forgy, East Ohio Gas, 3.
Samuel Franks, Carter Oil, 1.
Prairie, R. & E. Robinson, Ohio Oil, 1.
Marquis, Pure Oil, 1.
W. F. Kimball, East Ohio Gas, 1.
Ripley, E. & M. Scott, East Ohio Gas, 3.
Rigs, 6; wells drilling, 18; total, 24.

COSHOCTON COUNTY
Rigs

Newcastle, Wm. Johnson, Logan Gas, 1.
Moses Dallier, Logan Gas, 1.
Wells Drilling
Newcastle, John W. Frazier, Logan Gas, 1.
Rigs, 2; wells drilling 1; total, 3.

JACKSON COUNTY
Rigs

Washington, Gates & Chenoweth, Ohio Fuel Gas, 1.
Coal, Ed. Townsend, Ohio Fuel Supply, 1.
Franklin, T. J. Dearing, Ohio Fuel Supply, 1.
Wells Drilling
Coal, Fred Pugh, Ohio Fuel Supply, 1.
Franklin, Wm. Steele, Ohio Fuel Supply, 1.
Lick, Grace Miller, Ohio Fuel Supply, 2.
Rigs, 3; wells drilling, 3; total, 6.

ATHENS COUNTY
Wells Drilling

Carthage, J. W. Kincade, Logan Gas, 1.
John Archer, Logan Gas, 1.
M. Kinnon, Logan Gas, 1.
Arthur Cole, Logan Gas, 5.
E. Bailes, Jay O. & G., 2.
H. E. Allen, Sweaney & Co., 1.
Troy, Sid H. Johnson, McBride & Co., 1.
S. W. Waldman, Logan Gas, 2.
Waterloo, E. S. Stewart, Logan Gas, 1.
Wells drilling, 9.

MEIGS COUNTY
Rigs

Sutton, Robt. Crow, Ohio Fuel Supply, 1.

Ramsey Heirs, Wm. Burke & Co. 1.... dry
West, Garvin & Slagle 3..... dry
Wilson, E. H. Hutchison 1..... dry

Trust.
Franchot, W. C. Kennedy Co. No. 2.
Fee, Lawry & Houston 9.

M. L. Easterday, Ohio Fuel Supply, 1.
J. V. Jividen, Ohio Fuel Supply, 1.
Rigs, 3.

CUYAHOGA COUNTY
Wells Drilling

Strongville, R. Todd, Central Ohio Gas, 1.
J. F. Pierce, East Ohio Gas, 1.
Wells drilling, 2.

CRAWFORD COUNTY
Wells Drilling

Galion, Town Lot, Weed-Hamilton Oil, 1.

SUMMITT COUNTY
Wells Drilling

Richfield, S. Feasley, East Ohio Gas, 1.
D. B. Alger, East Ohio Oil, 1.
Rex Babb, Hulse & Koontz, 1.
Wells drilling, 3.

LIMA FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	13	148	2	0	2	19	21
Hancock	6	187	0	1	2	7	9
Allen	2	25	0	0	0	4	4
Auglaize	3	22	0	0	1	5	6
Sandusky	2	35	0	0	0	1	1
Mercer	12	49	0	1	3	7	10
Van Wert	2	45	0	0	1	1	2
Benedict	0	0	0	0	0	2	2
Lucas	0	0	0	0	0	1	1
Ottawa	4	54	0	0	0	2	3
Darke	4	25	1	0	0	7	7
Shelby	8	85	0	3	0	6	6
Paulding	4	220	0	0	2	5	7
Hardin	4	85	0	1	0	4	4
Wyandot	1	50	0	0	0	0	0
Michigan	0	0	0	0	0	2	2
Total July..	65	1,030	3	6	11	74	85
Total June..	63	1,070	6	1	9	65	74
Difference...	2	40	3	5	2	9	11

WELLS COMPLETED
WOOD COUNTY

Montgomery—J. L. Crowfoot, H. C. Corder 1, 2 ..... abd
Freedom—F. & W. Ables, Van Vleck-Stowe Oil 6 5
A. H. Bruning, Ohio Oil 21 20
Plain—Roe heirs, Allen Coen & Co. 5.. 10
H. A. Goodenough, Hulse & Koontz 2 abd
Henry—G. E. Grant, George E. Grant & Son 2 5
Bloom—G. E. Grant, George E. Grant & Son 5 40
Liberty—Mrs. C. Potter, Mrs. C. Potter 20 ..... dry
LaPo'nte, B. C. Conklin 2 12
Lake—Henry Bahnsen, R. G. Bowle 1.. 9
Fred Overmyer, Chas. F. Zeising & Co. 3 25
Perrysburg—George Vetters, Ohio Oil 1 dry
G. W. DeVernam, John E. Welton 2.. 20
Troy—H. Linke, Johnson & Johnson 11. 2
Milton—Chas. M. Davis, Earl Klotz 1, 2, 5 ..... abd

Wells completed 12
Production 148
Dry 2
Abandoned 6

HANCOCK COUNTY

Marion—W. C. Cox, Differential Steel Car 1 ..... gas
Eagle—J. H. Haley, B. Porter & Co. 17 65
Lem Aurand, Porter & Hovis 13 50
Union—Henry Deeds, Ewing & Montgomery 9 12
Henry Schwinn, Harpst Bros. 15..... 10
Biglick—C. S. Chambers, Cole Bros & Co. 2 50
Orange—Dan Matter, J. B. Sawmiller & Co. 4, 6, 7 ..... abd

Wells completed 6
Production 187
Gas 1
Abandoned 3

ALLEN COUNTY

Bath—D. N. Gengler, Hadley & Kelley 3 15
Elias Lewis, C. A. Peavey & Co. 9... 10
J. B. Early, Watson Oil 1, 2..... abd
A. Allison, C. C. Apple 1, 2..... abd
Ottawa—Haskell & Co., F. J. Sawmiller 3, 4 ..... abd
Monroe—G. E. Lamb, C. C. Apple 1.... abd
E. O. Sawmiller, C. C. Apple 1..... abd

Wells completed 2
Production 26
Abandoned 8

AUGLAIZE COUNTY

Logan—F. Zeigenbush, E. L. Kirk & Co. 1 10
Moulton — Dave Hanold, Cliff Blair & Co. 1 10
W. E. Coom, M. V. Young & Co. 2... 2

Wells completed 3
Production 22

SANDUSKY COUNTY

Woodville — Ed. Overmyer, Interstate Operating 8 20
George F. Sandwich, D. Melgard 3... 15
Washington — Louis Driftmyer, Van Vleck-Stowe Oil 3, 4, 5..... abd
Madison—Fee, Zorn-Hornung Oil 1, 4... abd
Sandusky — Lewis Wilhelm, Paragon Ref. 1, 2, 3, 4, 5, 6..... abd

Wells completed 2
Production 35
Abandoned 11

MERCER COUNTY

Gibson—S. Behm, P. Harkless 1 2
J. Brunswick, Sam Tate & Son 1..... 4
L. Klingshorn, Delta Oil 3..... 3
P. Fecher, Sam Allen 1..... 1
Liberty—Henry Brehm, Celina Pet. 1, 4... 5
Washington—Dan Spriggs, Indiana Oil 1 2
Hopewell—C. Ricketts, E. A. Kuhns & Co. 1 2
Geo. F. Hellsworth, June Oil 4..... 5
Butler—Cath. Fetzer, Carter Oil 1 .... gas
Cath. Fetzer, Geo. Lacknett & Co. 7. 20
G. McAfee, Geo. Lacknett & Co. 1.... 2
H. Wenker, O. J. McGuigan 1..... 2
Union—G. W. Kinkley, Watson Oil 1.... abd
R. S. Kinkley, Watson Oil 1..... abd
Center—Arthur Dick, E. A. Kuhns & Co. 1 ..... abd

Wells completed 13
Production 49
Gas 1
Abandoned 3

VAN WERT COUNTY

York—T. R. Hughes, Lima Trust Co. 6. 15
Wm. George, Wheeler Oil 2 20
Harrison—Steve E. Germann, Unknown 1 10

Wells completed 3
Production 45

OTTAWA COUNTY

Harris—Mary Schott, Zorn-Hornung Oil 8 15
Belle Clay, Zorn-Hornung Oil 9..... 12
A. J. Weis lot, Fox & Co. 1..... 8
J. D. Smith, Gust Magsig & Son 4... 16

Wells completed 4
Production 54

DARKE COUNTY

Mississinewa—John Schmidts, Illendo Oil 5 1
Allen—J. T. Patton, Mondarke O. & G. 9 10
J. T. Patton, Mondarke O. & G. 10... 16
D. Dundeisperger, Real Oil 1 ..... dry

Wells completed 4
Production 26
Dry 1

SHELBY COUNTY

Cynthian — Chas. Broerman, Harmon-Miller Oil 2 20
Peter Coffena, Ohio Oil 1 18
J. H. Barnherst, Lee A. Watson 1... gas
Anna Eilerman, Eilerman Oil 2 20
H. Dansig, Schlagel & Johnson 1..... 25
H. F. Hescher, Schlagel & Johnson 1 gas
H. Seiple, Cash Dollar Oil 1 ..... gas
J. Zimmerman, Cash Dollar Oil 1..... 2

Wells completed 8
Production 85
Gas 3

PAULDING COUNTY

Benton—Wm. King, U. S. A. Oil 2 60
C. Yearling, W. C. H. Oil 1 75
Harrison—Thos. Lamb, Aetna Drilling 1 75
Brown—W. H. Patterson, Robinson Oil 1 10

Wells completed 4
Production 220

HARDIN COUNTY

McDonald—Erwin Hiter, Roundhead O. & G. 4 30
Geo. Greentree, Cockley Oil 1 35
Roundhead—Jas. Hill, Schmidt & Co. 1 gas
Marion — Levi Coneroy, Schmidt & Holmes 1 20

Wells completed 4
Production 85
Gas 1

WYANDOT COUNTY

Carey—Unknown, Riley Allen & Co. 1.. 50

WOOD COUNTY
Rigs

Plain—Rockwood, E. C. Rockwood 1.
Fay C. Burkhalter, B. Perry 1.
Wells Drilling
Freedom—A. H. Bruning, Ohio Oil 22.
Plain—Mose Lane, Ohio Oil 1.
Hendricks, F. J. Hendricks 1.
Henry—John Cahill, Trail Oil 4.
Bloom—Loose-Walbridge, Western Ohio Oil 3.
Sol Smith, Ohio Oil 17.
R. A. Hughes, Ohio Oil 18.
Dan H. Easley, Ohio Oil 17.
Chas. Rickard, Mat Smith 2.
Liberty—S. F. Hodgman, W. E. Donnelly 3.
Eli Stockwell, Paragon Ref. 21.
F. Steen, H. L. F. Oil Corp. 2.
W. M. Cookson, Schiedt, Hamann & Huston 1.
John Drace Sr., Ohio Oil 20.
Middleton—A. J. Ovitt, Wm. Stitt 11.
Lake — Henry Shulte, Lantz, Gregg & Schulte 5.
Emil Brendt, Chas. F. Zeising & Co. 3, 4.
Perrysburg—Melvin R. Speck, Melvern Good 2.
Rigs, 2; wells drilling, 19; total, 21.

HANCOCK COUNTY
Rigs

Eagle—S. M. McClelland, B. Porter & Co. 2.
Lem Aurand, Porter & Hovis 14.
Wells Drilling
Allen—Mahlen Decker, Ohio Oil 30.
Marion—J. G. Oberholtz, Findlay Pet. 14.
Portage—R. A. Cooper, Ohio Oil 12.
Union—J. A. Rogers, Ohio Oil 2.
Flick heirs, Ewing & Montgomery 8.
Biglick—C. & C. Saltzman, A. S. Cochran 1
Pleasants—Annie Henry, Bath Township Oil 2.
Rigs, 2; wells drilling, 7; total, 9.

ALLEN COUNTY
Wells Drilling

Bath—Elias Lewis, C. A. Peavey & Co. 10.
C. E. Plaugher, Carman, Botkins & Co. 1.
Marion—Angeline Handle, W. O. Huntley 1.
I. East, Ohio Oil 7.
Wells drilling, 4.

AUGLAIZE COUNTY
Rigs

Noble—N. Fogt, P. Davidson & Co. 1.
Wells Drilling
Logan—Mrs. M. A. Dingledine, Waller Oil 3.
Mounton—Mrs. S. Whetstone, Cliff Blair & Co. 2.
Dave Hanold, Cliff Blair & Co. 2.
J. R. Julian, J. R. Kelley 1.
Alvin Myers, Geo. Lynch & Co. 1.
Rigs, 1; wells drilling, 5; total, 6.

SANDUSKY COUNTY
Wells Drilling

Ed Overmyer, Interstate Operating 9.

MERCER COUNTY
Rigs

Washington—H. Hohn, Henry Hohn 1.
Union—Geo. Roebuck, Watson Oil 7.
Butler—Caroline Neiberling, Courtney Comba 1.
Wells Drilling
Liberty—F. V. Bollenbacher, Strong Bros 2, 3.
Hopewell—Geo. F. Hellsworth, Home Banking Co. 1.
Butler—John Ables, B. T. A. O. & G. 4.
John Ables, H. C. Croft 1.
B. Uppencamp, C. Croft 1.
John Dues, R. E. Young 1.
Rigs, 3; wells drilling, 7; total, 10.

VAN WERT COUNTY
Rig

Jennings—Anna Burnett, Stanley Oil 2.
Wells Drilling
J. E. Moore, Calvin Neely 1.
Rigs, 1; wells drilling, 1; total, 2.

SENECA COUNTY
Wells Drilling

Eden—J. Klaiss, The Sun Co. 1.
Clinton—T. E. Baldwin, Arthur Geyer & Co. 2.
Wells drilling, 2.

LUCAS COUNTY
Wells Drilling

Monclova—Wm. Black, Swan Creek O. & G. 2

OTTAWA COUNTY
Wells Drilling

Harris—John B. Netcher, Fox & Co. 1.
Albert Weis, Elmore O. & G. 3.
W. E. Stewart, Gust Magsig & Son 1.
Wells drilling, 3.

DARKE COUNTY
Wells Drilling

Mississinewa—Andy Cox, E. G. Hoffman, 1.
W. C. Disher, Cole O. & G. 12.
J. Schawn, H. A. Marlin 4.
Chas. Miller, R. P. Early Trustee 7.
Allen—J. Goodpasture, Commonstock Oil 1.
J. Prittencer, Creamer & Co. 1.
G. L. Toman, Mondarko Oil & G. 2.
Wells drilling, 7.

SHELBY COUNTY
Wells Drilling

Cynthian—S. Swartz, Ohio Oil 1.
Anna Eilerman, Eilerman Oil 3.
Chas. Broerman, Harmon-Miller Oil 3.
Perry Moyer, McClure & Marshall 1.
J. Holscher, Schlagel & Johnson 1.
Turtle Creek—Wagoner, McClure & Marshall 1.
Wells drilling, 6.

PAULDING COUNTY
Rigs

Benton—O. F. & M. E. Brady, J. W. McIntosh 1.
Harrison—Thos. Lamb, Aetna Drilling 2.
Wells Drilling
Benton—Clara Graham, Harmon-Miller Oil 2.
W. D. Rule, W. C. H. Oil 2.
Conrad Yearling, W. C. H. Oil 2.
Wm. King, U. S. A. Oil 3.
Brown—W. H. Patterson, Robinson Oil 2.
Rigs, 2; wells drilling, 5; total, 7.

HARDIN COUNTY
Wells Drilling

McDonald—Arthur Zimmerman, Whipple, Ulrich & Co. 1.
Erwin Hiter, Roundhead O. & G. 5.
Geo. Greentree, Cockley Oil 2.
Marion—Scioto Land, Schmidt & Holmes 1
Wells drilling, 4.

MICHIGAN
MONROE COUNTY
Wells Drilling

Dundee—Frank Roe, Jackson County O. & G. 1.

JACKSON COUNTY
Wells Drilling

Napoleon—Silvers, Jackson County O. & G. 1.

ILLINOIS FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg	Ttl.
Clark	6	260	0	2	2	7	9
Cumberland	0	0	0	0	0	1	1
Crawford	2	0	2	0	0	6	6
Lawrence	2	6	0	0	0	2	2
Clinton	0	0	0	0	0	1	1
Marion	1	10	0	0	0	0	0
Monroe	1	35	0	0	0	0	0
Coles	1	1	0	0	0	1	1
Douglas	0	0	0	0	0	1	1
Edgar	0	0	0	0	0	1	1
Wabash	2	145	0	0	1	9	10
Union	0	0	0	0	0	1	1
Fayette	0	0	0	0	1	0	1
Total July..	15	457	3	2	4	30	34
Total June..	24	735	5	0	2	19	21
Difference ..	9	278	3	2	2	11	13

WELLS COMPLETED
CLARK COUNTY

Martinsville—John S. Carper, Trenton Rock Oil 13 75
E. R. Auld, Trenton Rock Oil 7..... 75
S. W. McClelland, Trenton Rock Oil 5 45
Wm. Howard, Trenton Rock Oil 1 ... 65
Johnson—Jos. Claypool, Dinsmore Oil 5, 6 ..... gas

Wells completed 6
Production 260
Gas 2

CRAWFORD COUNTY

Montgomery — J. Loughead, Chas. Karnes 2 ..... dry
Martin—S. Lamb, Karnes & Schrecongast 5 ..... dry

Wells completed 2
Dry 2

LAWRENCE COUNTY

Bond—W. & F. Fitch, Dinsmore Oil 1 3
W. B. Fitch, Peoples Banking & Trust 2 3
Petty—Oscar Smith, Ohio Oil 1, 2, 3, 14 ..... abd
S. E. G. Cogel, Ohio Oil 4, 6, 31, 43 abd

Wells completed 2
Production 6
Abandoned 8

MARION COUNTY

Centralia—John Kinsey, Petro O. & G. 12 10

MONROE COUNTY

Waterloo—Heny Kolmer, Ohio Oil 8.... 35

COLES COUNTY

Hutton—J. Foreman, Colgrove & Hoey 16 1

WABASH COUNTY

Wabash—Della Wright, Arkansas Fuel Oil 7 120
A. Biehl, Young & Co. 1. 25

Wells completed 2
Production 145

CLARK COUNTY
Rigs

Martinsville—S. W. McClelland, Trenton Rock Oil 6.
Wm. Howard, Trenton Rock Oil 2.
Wells Drilling
Parker—C. Hammond, Mumford Oil 10.
Martinsville—Mary J. McClelland, Titus Oil 1.
Nettie Baker, W. C. McBride Ind. 2.
John S. Carper, Trenton Rock Oil 13.
S. M. Bossman, Ohio Oil 13.
Westfield—R. C. Wilhoit, D. W. Watson & Co. 2.
Johnson—Z. E. Brant, Ohio Oil 1.
Rigs, 2; wells drilling, 7; total, 9.

CUMBERLAND COUNTY
Well Drilling

Dobbs—Bower-Central Illinois Pet. 1.

CRAWFORD COUNTY
Wells Drilling

Oblong—Ed Henry, Dinsmore Oil 3.
Robinson—H. Morrison, S. D. Jessup & Co. 1.
Montgomery—C. A. Dickinson, W. C. McBride Inc. 1.
Martin—J. H. Wright, Kewanee O. & G. 24.
S. Lamb, Karns & Schrecongast 6.
Honey Creek—J. W. Rich, McDowell & Galy 10.
Wells drilling, 6.

LAWRENCE COUNTY
Wells Drilling

Bond — W. B. Fitch, Peoples Banking & Trust 3.
Bridgeport—C. B. O'Donnell, Snowden-McSweeny 41.
Wells drilling, 2.

CLINTON COUNTY
Well Drilling

Wade—Maria Smith, Ohio Oil 30.

COLES COUNTY
Well Drilling

Sargent—W. E. Brown, Douglas Oil 1.

EDGAR COUNTY
Well Drilling

Kansas—J. H. Sallee, L. C. Hood & Co. 1.

WABASH COUNTY
Rig

Wabash—Geo. D. Smith, J. T. Toomey & Co. 6.
Wells Drilling
Wabash—Della Wright, Arkansas Fuel Oil 8, 9.
Jac T. Smith, Adams Corner Oil 4.
Geo. Lovelette, Timberlake & Co. 1.
Price heirs, Henley & Co. 1.
John Leed, Young & Co. 1.
J. T. Smith, Timberlake & Co. 1.
Wm. Cozin, Johnson & Co. 1.
Friendsville—O. A. Price, Arkansas Fuel Oil 1.
Rigs, 1; wells drilling, 9; total, 10.

UNION COUNTY
Well Drilling

Bald Knob—Near Alta Pass, W. MacSmith 1.

FAYETTE COUNTY
Rig

Pope—John Baxter, McCurdy & Co. 1.

INDIANA FIELD

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wells	0	0	0	0	0	1	1
Jay	9	102	1	0	0	7	7
Adams	0	0	0	0	0	1	1
Huntington	1	0	1	0	0	0	0
Delaware	0	0	0	0	0	1	1
Randolph	1	5	0	0	0	0	0
Gibson	2	15	1	0	0	2	2
Sullivan	0	0	0	0	0	2	2
Knox	0	0	0	0	1	1	2
Harrison	0	0	0	0	0	1	1
Laporte	0	0	0	0	0	1	1
Hendricks	0	0	0	0	0	1	1
Total July..	13	122	3	0	0	18	19
Total June..	12	145	6	1	2	23	24
Difference ..	1	23	3	1	1	4	5

WELLS COMPLETED
JAY COUNTY

Bear Creek—D. Bergman, Mesel & Mesel 3 50
J. H. Whiteman, Mesel & Mesel 3.... 10
M. Campbell, Rebecca M. Keith 9 10
Pike—Thos. Lyons, Masters & Co. 1.... dry
M. Mott, Omar O. & G. 10 2
T. Hotmier, Tanguary & Co. 2 10
C. Rathbun, Bundy, Thompson & Co. 9 5
Fannie Lyons, Makeever Bros. and Master 6 5
Red Key Bank, Glover & Co. 3..... 10

Wells completed 9
Production 102
Dry 1

ADAMS COUNTY

Jefferson—G. Bobemyer, General Dev. 1, 2 ..... abd
Lon Weaver, General Dev. 1 ..... abd
Wabash—D. Studebaker, Frank Filer 3 abd

Wells abandoned 4

HUNTINGTON COUNTY

Wayne—F. Giltner heirs, Sours & Co. 1 dry

RANDOLPH COUNTY

Monroe—J. A. Jones, Murphy & Co. 2 5
L. C. Gable, J. F. Salock 1, 2, 3, 4, 5, 6, 7 ..... abd

Wells completed 1
Production 5
Wells abandoned 7

GIBSON COUNTY

Center—W. Steiner, Edmonson & Co. 1 15
W. A. McRoberts-Murphy Oil 1..... dry

Wells completed 2
Production 15
Dry 1

PIKE COUNTY

Logan—A. Atkinson, Good Luck Oil 4 abd
Monroe—Amelia Skinner, F. T. Ward 3 abd
A. J. Hurt, J. C. Heydrick 2..... abd

Wells abandoned 3

WELLS COUNTY
Well Drilling

Jackson—S. A. Griffith, Hartford O. & G. 1.

JAY COUNTY
Wells Drilling

Bear Creek—D. W. Bergman, Mesel & Mesel 4.
Jas. Hews, Rebecca M. Keith 8.

Pike—A. Ritenour, Masters & Colt 20.
Oren O'Brien, Masters & Colt 3.
T. Hotmier, Tanguary & Co. 3.
Red Key Bank, Glover & Co. 4.
R. Cummings, L. W. Edmundson, Trustee, 10.
Wells drilling, 7.

ADAMS COUNTY
Wells Drilling

Hartford—M. L. Soura, Mason & Co. 2.

DELAWARE COUNTY
Well Drilling

Delaware—J. W. Goings, DeSoto O. Synd. 9.

GIBSON COUNTY
Wells Drilling

Washington—Ira Seifer, M. Lynch & Co. 1.
Center—W. Steiner, Edmons & Co. 2.
Wells drilling, 2.

SULLIVAN COUNTY
Wells Drilling

Hamilton—G. Parks, Mayfield & Co. 1.
Turman—W. H. Huff, Fred Bays 2.
Wells drilling, 2.

KNOX COUNTY
Rigs

Harrison—L. L. Proctor, P. C. Andrews & Co. 1.

Well Drilling

Harrison—Slaten F. Barlow, P. C. Andrews & Co. 1.
Rigs, 1; wells drilling, 1; total, 2.

HARRISON COUNTY
Well Drilling

Corydon—John Blake, Railroaders Oil 2.

LAPORTE COUNTY
Well Drilling

Dewey—R. W. Keller, Aetna Drilling 2.

HENDRICKS COUNTY
Well Drilling

Clay—W. E. Christie, Amo Oil 1.

W. KENTUCKY-TENNESSEE

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wayne	6	6	4	0	2	7	9
Powell	1	5	0	0	1	1	2
Estill	5	11	2	0	0	2	2
Wolfe	1	25	0	0	0	2	2
Morgan	0	0	0	0	0	1	1
Lee	10	425	1	0	2	12	14
Lawrence-Johnson	18	450	0	1	4	25	29
Johnson-Magoffin	4	30	0	0	1	27	28
Allen	45	698	14	0	2	20	22
Warren	22	318	3	0	0	24	24
Simpson	2	156	0	0	0	5	5
Barren	24	176	3	1	2	23	25
Edmonson	0	0	0	0	0	1	1
Cumberland	7	130	4	0	0	23	23
Monroe	0	0	0	0	0	6	6
Owensboro district	15	96	6	0	2	10	12
Russell	0	0	0	0	0	7	7
Metcalf	2	0	1	1	0	1	1
Owsley	1	0	1	0	0	1	1
Hopkins	0	0	0	0	0	1	1
Hardin	1	0	1	0	0	0	0
Breathitt	0	0	0	0	0	1	1
Rowan	0	0	0	0	0	1	1
Laurel	0	0	0	0	0	2	2
Elliot	0	0	0	0	1	4	5
Floyd	2	65	0	0	1	2	3
Harlan	0	0	0	0	1	0	1
Pike	0	0	0	0	0	1	1
Bell	0	0	0	0	0	1	1
Adair	0	0	0	0	0	1	1
Larue	1	0	1	0	0	0	0
Henderson	0	0	0	0	0	1	1
Taylor	0	0	0	0	0	1	1
Green	1	4	0	0	0	0	0
Kentucky	168	2,595	41	3	19	214	233
Tennessee	7	4	5	0	3	12	15
Mississippi	3	0	3	0	6	20	26
Alabama	0	0	0	0	0	11	11
Georgia	0	0	0	0	1	4	5
Total July	178	2,599	49	3	29	261	290
Total Jun.	178	2,832	42	3	17	319	336
Difference	0	233	7	0	12	58	46

WELLS COMPLETED
WAYNE COUNTY

Monticello—Upchurch, Head, Brown & Co. 8 ..... dry
J. E. Rogers, C. E. Daugherty & Co. 5 dry
L. N. Morrow, Beaver Pet. 7 5
H. H. Duncan, R. W. Wright 15 ... 1
Will Sandusky, Marsh & Co. 1 ..... dry
A. W. Campbell, Clark O. & G. 6 ... dry

Wells completed 6
Production 6
Dry 4

POWELL COUNTY

Slade—Nancy Mays, Kelley, Fluks & Co. 13 5

ESTILL COUNTY

Irvine—Sam Tipton, Wood Oil Co. 16.. 3
Sam Tipton, Wood Oil Co. 17 3
Sam Tipton, Wood Oil Co. 18..... dry
Floyd Rogers, Wood Oil Co. 25 ..... dry
Miliard Ballard, Scott, Prott & Co. 4 5

Wells completed 5
Production 11
Dry 3

WOLFE COUNTY

Torrent—E. B. Roberts, Federal Oil Corp. 2 25

LEE COUNTY

Beattyville—Susan Winum, Tom Drake & Co. 1 10
Upchurch, Upchurch & Co. 1 5
George Botner, Pet. Explor. Co. 5.. 200
George Botner, Pet. Explor. Co. 6.. 75
George Botner, Pet. Explor. Co. 7.. 40
Brandenburg-Gourley, Pet. Explor. Co. 5 40
Rufus Jackson, Pet. Explor. Co. 1.. 40
Roland Stone, Pet. Explor. Co. 1.. dry
John Mays, Carter Oil Co. 2 5
Dora Mays, Swiss Oil Corp 1 10

Wells completed 10
Production 425
Dry 1

LAWRENCE-JOHNSON COUNTIES

North Weir—L. H. Skaggs, Union Gas & Oil Co. 6 15
L. H. Skaggs, Union Gas & Oil Co. 7 5
B. Ferguson, Union Gas & Oil Co. 12 20
J. H. Hoolbrook, Union G. & O. Co. 10 15
Wm. Lester, Union Gas & Oil Co. 5 20
L. P. Holbrook No. 2, Union Gas & Oil Co. 1 ..... gas
Martha Kelly, Union Gas & Oil Co. 11 35
Laura Skaggs, Union G. & O. Co. 6 20
H. Bailey, Union Gas & Oil Co 4... 5
Proctor Sparks, Union G. & O. Co. 27 60
J. E. Holbrook, No. 1, Union Gas & Oil Co. 2 15
J. C. Gillam, No. 1, Union Gas & Oil Co. 7 10
G. W. Evans, Union Gas & Oil Co. 12 25
J. J. Gambill, Union Gas & Oil Co. 33 50
Andrew Skaags, Union G. & O. Co. 16 35
Andrew Skaggs, Union G. & O. Co. 16 50
Laban Sparks, V. V. Adkins, 1 20
C. K. Dobbins, Garrison & Townsend 1 50

Wells completed 18
Production 450
Gas 1

JOHNSON-MAGOFFIN COUNTIES

South Weir—W. S. Adams, Pet. Explor 3 10
W. S. Adams, Pet. Explor. 24..... 5
Frank Conley 66 acres, Atlantic Oil Producing Co. 13 10
Darius Conley, No. 2, R. G. Gillespie 1 5

Wells completed 4
Production 30

ALLEN COUNTY

Scottsville—B. S. Ayers, S. R. S. Oil Co. 5 ..... dry
B. S. Ayers, S. R. S. Oil Co. 6 ..... dry
Morris, Russell Oil Corp. 4 ..... dry
W. C. Wilson, McKinney & Co. 1.. dry
W. C. Wilson, McKinney & Co. 2.... 5
T. Y. Oliver, White Plains O. & G. Co., 29 15
T. Y. Oliver, White Plains Oil & Gas Co. 30 10
J. L. French, White Plains O. & G. 5 80
Susan Moore, Parks & Co. 8..... 3
Susan Moore, Parks & Co. 3
Susan Moore, Parks & Co. 9 3
Beucher, Unique Oil Co. 4 5
Brown, Unique Oil Co. 12 15
Walker, Andrus & Millett 5 380
Walker, Andrus & Millet 4 10
Graves, Todd & Berry 12 20
Burton Bros., Russell Oil Corp. 14.... 12
A. Hobdy, J. R. English 10 10
A. Hobdy, J. R. English 9 8
W. Smith, C. Smith 11 ..... dry
Lyle, Forrest & Co. 6 ..... dry
Harris, Peerson & Neeley 1 2
M. Johnson, R. B. Irwin 7 2
Williams, Omar O. & G. Co. 15.... 4
V. Frost, Cutler & Co. 13 5
L. D. Robinson, L. D. Robinson 15... dry
W. T. Keen, Kenmont Oil 17 ..... dry
Gib Miller, Hainbaugh & Co. 1 ..... dry
Travelstead, H. A. Kiser 4 2
Matlie, Allen County Oil Corp. 9..... 20
G. W. Willoughby, J. G. Esslinger 4.. 8
Peerson, West Penn Oil Corp. 10..... 7
Alonzo, Newman & Co. 1 ..... dry
Leffingwell, Freelance Oil Co. 1 20
Lyles, Bastrus & Co. 1 ..... dry
Wheat, Fred Hartman 6 15
Guy, Work & Co. 7 ..... dry
Lambert, Benwood Oil Co. 3 ..... dry
Goodrum, Blair & West 1 12
H. G. Rather, Kentucky Developing Co. 1 5
Barbee, Foster & Co. 10 3
Barbee heirs, Central Producing & Refining Co. 13 2
Fisher, Roberts & McNeil 11 3
Dr. Dixon, Dixon & Hobdy 1 10
Lathenwell, Florence Oil Co. 7 1

Wells completed 45
Production 698
Dry 14

WARREN COUNTY

Bowling Green—W. R. Hunton, P. H. Lavelle 5 18
V. Potter, H. W. Ennis & Co. 1..... 45
J. Hobson, M. B. Williams 4 10
R. H. Gott, Royal Oil Co. 1..... 15
Bryant, Cunningham & Henry 2..... 35
Young, Makeever Bros. 9 5
Young, Makeever Bros. 10 30
G. Davenport, T. A. Sheridan 1 15
Mercer, Petroleum Exploration Co. 25 14
J. W. Lowe, Miami Oil & Gas Co. 7.. 3
Massey-Rabold, G. D. Miller, trustee 6 5
G. Riggiewood, H. J. Dobson 3..... dry
Price, Belling & Lowman, 6 45
Jess Shanks, Amfot Oil Corp. 6..... 7
Jess Shanks, Amfot Oil Corp. 7..... 20
J. L. McGinnis, G. W. Fielder 2..... 7
M. V. Hatcher, Fisher & Co. 1..... dry
Miller, F. W. Evans 1 ..... dry
Biddle, Cadet O. & G. Co. 21 15
C. A. Keller, Westland Oil Corp. 25 12
Jim Isabel, Wood Oil Co. 13 5
Sansom, Dye Bros. 4 12

Wells completed 22
Production 318
Dry 3

SIMPSON COUNTY

Franklin—Summers, E. M. Treat & Co. 12 150
Holland, Brechimier & Co. 1 6

Wells completed 2
Production 156

BARREN COUNTY

Glasgow—Ziegler Bros., Ziegler Bros. 3 9
Ziegler Bros., Ziegler Bros. 4 15
Wininger, Carter Oil Co. 3 12
Wininger, Carter Oil Co. 4 15
Wininger, Carter Oil Co. 5 7
Church Wood Oil Co. 2 ..... dry
Harston, L. J. Emery, Jr. & Sons 21 7
Kinslow, L. J. Emery, Jr., & Sons 1.. dry
Wright, F. A. Brendal 1 ..... dry
James, F. A. Brendal 1 1
Jim Lewis, Humes & O'Neil 1 4
Neeley, Kopel & Co. 1 2
Warder, Elem O. & G. Co. 10 7
Ziegler, Houchins Leasehold Co. 5... 18
H. Jordon, E. N. Ahlfeldt 1 2
Dawsey, Parks & Co. 2 4
McCubbin, Fred Moore 2 14
Russell, Sampson, Wader & Norris Bros. 4 12
Ritchie, Sampson, Wader & Norris Bros. 5 9
Mann, J. G. Esslinger 1 10
Duff, Consolidated Gas Co. 1 ..... gas
Taylor, Gorby & Co. 1 10
Smith ½ Akers Oil Co. 14 12
Vincent, South St. Paul O. & G. Co. 3 6

Wells completed 24
Production 176
Dry 2
Gas 1

CUMBERLAND COUNTY

Burkesville—J. T. Anderson, McClintock Oil Co. 4 25
C. C. Smith, McClintock Oil Co. 10.. 5
Ralney, Wilcox Bros. 1 ..... dry
Bill Dodson, Col. Petit 1 ..... dry
R. E. Williams, Kanawha Oil Co. 2... dry
Keen, W. S. Raydure 6 ..... dry
Thompkins, Vedder Oil Co. 2 100

Wells completed 7
Production 130
Dry 4

OWENSBORO DISTRICT

Owensboro—J. Rickett, Hartman & Young 1 ..... dry
Oat Neal, Leeper Oil Co. 1 ..... dry
Oscar Long, Pellville Oil Co. 1 ..... dry
H. Brown, H. F. Gibson 1 12
Taylor 18 acres, Dearborne Oil Co. 1 14
Taylor 18 acres, Dearborne Oil Co. 2 12
Taylor 18 acres, Dearborne Oil Co. 3 12
B. Barker, Dearborne Oil Co. 2 10
W. G. Payne, Kentucky Oil Co. 2..... 7
W. G. Payne, Kentucky Oil Co. 3..... 5
F. V. Miller, C. E. Daugherty 8 15
Ed Barker, Nutty & Pyle 2 9
L. W. McPhearson, McCombs Prod. & Ref. Co. 1 ..... dry
Henderson, McCombs Prod. & Ref. Co. 1 ..... dry
Dave King, Greasy Creek Oil Co. 2.. dry

Wells completed 15
Production 96
Dry 6

METCALF COUNTY

Edmonton—Toby, Helper & Co. 1 ..... gas
Ball, Gorby & Co. 1 ..... dry

Wells completed 2
Dry 1
Gas 1

OWSLEY COUNTY

Boonville—Fred Evans, Combs Bros. Dev Co. 1 ..... dry

HARDIN COUNTY

Elizabethtown—Brown, L. L. Emory Jr. 1. ..... dry

FLOYD COUNTY

Hueyville—Harkins, Unknown parties 1 40
T. Gamba, Unknown parties 1 25

Wells completed 2
Production 65

LARUE COUNTY

Hodgenville—H. Howe, Wood Oil Co. 1 dry

GREEN COUNTY

Greensburg—D. Davis, Wittner & Co. 1 4

TENNESSEE

CLAY COUNTY

Celina—Stover, Alexander & Co. 1..... dry
Greenwood, Sauls & Co. 1 1
E. Morrow, Peters & Co. 1 ..... dry
Williams, Da Fee & Co. 3 3

Wells completed 4
Production 4
Dry 2

JACKSON COUNTY

Jackson—Murchinson, Jackson-Tennessee Drg. Co. 1 ..... dry
Jodie Howard, Continental Oil Co. 1 dry

Wells completed 2
Dry 2

HAMILTON COUNTY

Chattanooga—Belvour, Parks & Co. 1.. dry

MISSISSIPPI

CHICKASAW COUNTY

Houston—J. Flarity, Harley Dev. Co. 1 dry

PIKE COUNTY

Magnolia—Culpit, Gulf Drg. Co. Inc., 1 dry

TISHOMINGO COUNTY

Iuka—Morgan, Mississippi Oil & Ref. Co. 1 ..... dry

WAYNE COUNTY
Rigs

Monticello—Ira Guffey, C. E. Daugherty & Co. 2.
Denny heirs, Wetzel & Dillon 3.
Wells Drilling
Monticello—G. H. Saunders, Barr & Griffith 5.
J. M. Huffaker, Bridgman Oil Co. 1.
M. F. Smith, Bridgman Oil Co. 12.
L. N. Morrow, Beaver Petroleum Co. 8.
J. H. Duncan, Dillon, Marsh & Brown 3.
Eph. Hurt, Bell & Criswell 1.
J. Harve Duncan, E. Hogue 10.
Rigs, 2; wells drilling, 7; total, 9.

POWELL COUNTY
Rigs

Slade—Nancy M. Mays, Kelley, Fulks & Co. 14.
Wells Drilling
Slade—W. D. Curtis, Knight & Biemer 1.
Rigs, 1; wells, drilling, 1; total, 2.

ESTILL COUNTY
Wells Drilling

Irvine—Sam Miller, Smith, Clarke & Co. 2.
Miller Ballard, Scott, Prott & Co. 5.
Wells drilling, 2.

WOLFE COUNTY
Wells Drilling

Torrent—Spencer heirs, Kentucky Star Oil Co. 1.
E. B. Roberts, Federal Oil Corp. 3.
Wells drilling, 2.

MORGAN COUNTY
Well Drilling

Cannel City—Kendall Bros., Petroleum Exploration Co. 2.

LEE COUNTY
Rigs

Beattyville—George Botner, Petroleum Exploration Co. 8.
George Botner, Pet. Explor. Co. 9.
Wells Drilling
Beattyville — Bandenburg-Gourley, Petroleum Exploration Co. 6.
Dave Mays' heirs, Hupp, Duff & Co. 11, 12, 13.
Adaline Porter, Hupp, Duff & Co. 2.
Gourley-McGuire, Black Gum Oil Co. 4, 5.
Dunningan, Chester Lowden 1.
Huntington, Huntington Oil Syndicate 3.
John Mays, Carter Oil Co. 3.
Gourley-McGuire, Hallet Producing Co. 7, 8.
Rigs, 2; wells drilling, 12; total, 14.

LAWRENCE-JOHNSON COUNTIES
Rigs

North Weir—O. P. Holbrook, Union Gas & Oil Co. 28.
Sandford Lyon, Union Gas & Oil Co. 2.
J. J. Gambill, Union Gas & Oil Co. 34.
D. H. Ferguson, Union Gas & Oil Co. 1.
Wells Drilling
North Weir—J. C. Gillam No. 2, Union Gas & Oil Co. 2.
Proctor Lyon, Union Gas & Oil Co. 4.
L. Skaggs, Union Gas & Oil Co. 16.
Martha Kelly, Union Gas & Oil Co. 11.
Wm. Lester, Union Gas & Oil Co. 1.
John Rose, Union Gas & Oil Co. 3.
J. M. Wheeler, Cumberland Pet. Co. 4.
N. M. Boggs, Cumberland Pet. Co. 6.
S. Hamilton, Cumberland Pet. Co. 7.
J. J. Skaggs, Cumberland Pet. Co. 1.
J. C. Gillam 50 acres, Indian-Tex. Pet. 4.
A. L. Gillam 50 acres, Indian-Tex. Pet. 1.
Will Gillam, Indian-Tex. Pet. 4.
J. C. Gillam, Indian-Tex. Pet. 8.
W. H. Kelley, Mid South Oil Co. 2.
R. Fyffe, Pluto Oil Co. 4.
Wayne Moon, Tom Hays 3.
M. Williams, Central Ky. Gas Co. 4.
C. Osborne, Skaggs, Miller & Co. 1.
R. M. Sparks, Boston-S. W. Oil Co. 21.
M. Meek, Carter Oil Co. 2.
Ira Lester, Fred Stone & Co. 3.
S. C. Skaggs, Figley, Day & Co. 5.
Carey-Fannin, Evans & Co. 1.
L. Sparks, V. V. Adkins 2.
Rigs, 4; wells drilling, 25; total, 29.

JOHNSON-MAGOFFIN COUNTIES
Rigs

South Weir—Frank Conley 66 acres, Atlantic Oil Producing Co. 15.
Wells Drilling
South Weir—W. S. Adams, Petroleum Exploration Co. 25.
Wm. Saylor, Carter Oil Co. 2.
D. Conley, Atlantic Oil Prod. Co. 2.
Frank Conley, Atlantic Prod. Co. 14.
Sam Blanton, R. G. Gillespie 19, 20, 21, 22.
J. D. Moore, R. G. Gillispie, 3.
Steve Howard, Mid South Oil Co. 5.
B. Blanton, Mid South Oil Co. 2.
Sam Bianton, Mid South Oil Co. 4.
Jess Borders, Cooper & Sublet 6.
J. G. Carpenter, New Domain O. & G. Co. 1.
C. Taylor, Red Rock Oil Co. 2.
W. E. Coffey, Superior Oil Co. 2.
C. Roark, David Browning & Co. 3.
F. M. Tackett, Wheeler & Co. 1.
J. Cochran, Little Paint Oil Co. 2.
L. M. Kimbleton, Little Paint Oil Co. 2.
E. Powers, Fields & Magee 1.
Wm. Fulkerson, Orrell & Thompson 1.
S. McKenzie, Coast Oil Co. 5.
J. G. White, J. G. White 2.
Julia Salyer, Henry Sipple & Co. 1.
C. C. Meade, C. C. Meade 1.
A. J. Tuckett, C. W. Wheeler & Co. 13.
Rigs, 1; wells drilling, 27; total, 28.

ALLEN COUNTY
Rigs

Scottsville—J. L. Grubbs, Rehn & Ogle 11.
Wheat, Bastrus & Parsons 3.
Wells Drilling
Scottsville—Williams, Omar Oil & Gas Co. L. D. Robinson, L. D. Robinson 16.
R. H. Gead, C. R. Borah 8.
J. Wood, John Batty 1.
G. W. Willoughby, J. G. Esslinger 3.
Ayers, H. A. Kiser 15.
Graves, Todd & Berry 13.
Bert Hinton, Frank Seaton 3.
Wygall, Russell Oil Corp. 8.
F. Dyson, Ruby Cons. Dev. Co. 10.
B. Stamps, Lewis Oil Co. 14.
R. Hinton, Work & Co. 9.
Peerson, West Penn Oil Synd. 11.
Frank Martin, Will R. Speck 4.
J. L. French, White Plains O. & G. Co. 4.
Brown, Unique Oil Co. 13.
Kerley, Neil-Huebring Co. 9, 10.
W. C. Carver, H. B. Bastrus 1.
J. Straight, Cutler and Co. 1.
Rigs, 2; wells drilling, 20; total, 22.

WARREN COUNTY
Wells Drilling

Bowling Green — Bryant, Cunningham & Henry 3.
G. Davenport, T. A. Sheridan 2, 3, 4, 5.
Gillispie, Gillispie Oil Co. 8.
Gillispie 103 acres, Baker-Jones Synd. 4.
Price-Hall, Ruby Cons. Dev. Co. 5.
Bryant, Ruby Cons. Dev. Co. 6.
McLemore, Olive Green Oil Co. 6.
V. Potter, H. W. Ennis & Co. 2.
Kuykendall, A. Allen 3.
Vance, Illinois-Kentucky Synd. 6.
H. Carson, Green Star Oil Co. 1.
Hawthorne, J. T. Williams 3.
Motley, Toms & Co. 3.
Bunch, Garland & Co. 4.
Garrett, Ohio Fuel Oil Co. 7.
Grider, Gardner, Ohio Fuel Oil 2.
R. H. Gott, Royal Oil Co. 2.
Oliver Grimes, Wood Oil Co. 4.
Jim Isabel, Wood Oil Co. 14.
Smith Bros., Doug. Bolling 1.
Young, Makeever Bros. 11.
Wells drilling, 24.

SIMPSON COUNTY
Wells Drilling

Franklin—D. B. Wilson, J. L. DeGeve 1.
D. B. Hogan, Small & Co. 2.
Smith, W. H. Martin & Co. 1.
Summers, E. M. Treat & Co. 13.
Smith, Unk. 2.
Wells drilling, 5.

BARREN COUNTY
Rigs

Glasgow—Free, Sampson, Wader & Norris Bros. Winn, Callahan & Winn 2.
Wells Drilling
Glasgow—Jim Lewis, Humes & O'Neil 3.
Wininger, Carter Oil Co. 6.
Starr, Samson, Warder & Norris Bros. 1.
Porter, Houchins Leasehold Co. 1.
Childress, Shaw Oil Co. 8.
L. Summers, South St. Paul O. & G. 7.
R. Summers, Amos & Barr 1.
Creek, Jackson & Co. 2.
Preston, R. A. Dale 3.
Hutchinson, F. Williams 1.
Duff, Norris Bros. 2.
Williams, G. W. Pyle 1.
Ritter Bros., Maxey & Stafford 2.
Winlock, JCS Oil Corp. 1.
Nichols, JCS Oil Corp. 1.
Scott, Norris Bros. 1.
Green, Smith & Son 2.
Bishop, Taylor Bishop 1.
Ritchie, Norris Bros. 6.
Kinslow, Baird Oil Co. 1.
Warder, Elem O. & G. 11.
Ziegler, Houchins Leasehold Co. 6.
Neeley, Kopel & Co. 2.
Rigs, 2; wells drilling, 23; total, 25.

EDMONSON COUNTY
Wells Drilling
Brownsville — W. F. Butram, JCS Oil Corp. 1.

CUMBERLAND COUNTY
Wells Drilling
Burkesville—Bud Kerr, Raydure, McClintock & Gartlan Estate 7.
Mary Scott, Fred Pederson 1.
Kim Crawford, Dayton Oil Synd 4.
Cleve Blythe, W. S. Raydure 2.
Coffey, Young Oil Co. 3.
Turn Smith, Banta & Co. 2.
Rush, Wabash Valley Oil Co. 1.
F. F. Smith, Oil Fork Dev. Co. 1.
Phares, Wilcox Bros. 1.
S. Shackles, Wilcox Bros. 2.
Reinle, Wilcox Bros. 2.
John Riddle, W. S. Raydure 1.
W. Anderson, W. S. Raydure 1.
Cary, W. S. Raydure 1.
H. Short, Combest & Morris 1.
J. B. Hume, Judie Dev. Co., Inc., 3.
Thomas, A. L. P. A. Oil Co. 1.
J. Parris, Mason Oil Co. 1.
Scott, Vedder Oil Co. 1.
Widow Fletcher, Robt. Stead 1.
Widow Logan, Daniel Boone Oil Co. 7.
Mrs. Coop, Kanawha Oil Co. 1.
Gilbert, Grant, Curtis & Co. 1.
Wells drilling, 23.

MONROE COUNTY
Wells Drilling
Tompkinsville—Ross, Unknown 1.
Emberton, H. A. Kiser 1.
Kidwell, Fred Hensgen 1.
J. B. Chappell, W. G. Bowles & Co. 1.
Vance, C. E. Dice 1.
Ferguson, Unknown 1.
Wells drilling 6.

OWENSBORO DISTRICT
(Hancock, Ohio and Daviess Counties)
Rigs
Owensboro — J. M. McDaniels, Petroleum Extraction Co. 1.
S. M. Bickett, Palmer Oil Synd. 1.
Wells Drilling
Owensboro—Reardon, McAdams & Arthur 1.
O. T. Burdette, White & Nicklin 3.
Bud Barker, Dearborne Oil Co. 2.
J. W. Burdette, O. C. Boop 1.
A. Payne, I. Harkless 1.
Gabbart, Pellville Oil Co. 1.
Abe Howe 45 acres, Pennsylvania-Indiana Oil Co. 5.
J. S. Collier, C. A. Leeper & Co. 1.
Barlow 40 acres, Bert Thompson 1.
Marshall Knott, Randolph, Stephenson & Coursen 1.
Rigs, 2; wells drilling, 10; total, 12.

RUSSELL COUNTY
Wells Drilling
Creelsboro—F. Garner, Carnahan & Co. 1.
L. D. Potts, R. F. Logan 1.
E. Mann, J. G. Elmitt 2.
F. L. Flatt, J. G. Elmitt 1
Mrs Coffey, Armstrong & Co. 3.
Ed Cambell, Armstrong & Co. 3.
A. O. Lay, Redman & Co. 1.
Wells drilling, 7.

METCALF COUNTY
Wells Drilling
Edmonton—F. Clark, Portland parties 1.

OWSLEY COUNTY
Wells Drilling
Boonville—Elmer Evans, Combs Bros. Dev. Co. 4.

HOPKINS COUNTY
Wells Drilling
Madisonville—Williams, Copper Flash Oil Co. 6.

BREATHITT COUNTY
Wells Drilling
Jackson—S. H. Hurst, Petroleum Exploration Co. 4.

BOWAN COUNTY
Wells Drilling
Morehead—Caney Creek, Patton O. & G. Co. 1.

LAUREL COUNTY
Wells Drilling
London—Bernstadt, Common O. & G. Co. 1.
Mrs. L. Hubbard, Piney O. & G. Co. 1.
Wells drilling, 2.

ELLIOT COUNTY
Rigs
Sandy Hook—Mason, Harry Sipple 1.
Wells Drilling
Sandy Hook—Wagner, Superior Oil Corp. 1.
Geo. Kappies, T. J. Evans 2.
Bentley, T. J. Evans 1.
Dilles, Wheeler & Campbell 3.
Rigs, 1; wells drilling, 4; total, 5.

FLOYD COUNTY
Rigs
Hueyville—C. D. Patrick, Cross Bros. 1.
Wells Drilling
Hueyville—Ky. Pine Coal, Brown & Harmon 1.
Glogona Coal, Pennegrade O. & G. Co. 1.
Rigs, 1; wells drilling, 2; total, 3.

HARLAN COUNTY
Rigs
Harlan—Cawood, Rex G. Carpenter & Co. 1.
PIKE COUNTY
Wells Drilling
Pikeville—Pond Creek Coal Co., A. J. Dalton & Co. 1.

BELL COUNTY
Wells Drilling
Middlesboro—Canada Int., Canada Peak Oil Co. 1.

ADAIR COUNTY
Wells Drilling
Adair—Smith, Bartow-Florida Interests 2.

TAYLOR COUNTY
Wells Drilling
Taylorsville—Near Maple, Wood Oil Co. 1.

HENDERSON COUNTY
Wells Drilling
Hamilton's Ferry—Petroleum Exploration & Eastern Gulf Co. 1.

TENNESSEE

CLAY COUNTY
Wells Drilling
Celine, Stanford, Dixon & Co., 2.
A. Short, Powell Oil Co., 4.
Stever, Alexander & Co., 2.
Greenwood, Sauls & Co., 2.
Unknown, Spain & Co., 2.
Wells drilling, 5.

JACKSON COUNTY
Wells Drilling
Jackson, Jodie Howard, Continental Oil Co., 2.

HARDEMAN COUNTY
Wells Drilling
Bolivar, Brown Sane, Spring Valley O. & G. Co., 1.

FAYETTE COUNTY
Rigs
Somerville, Joe Perry, Strickland & Co.

SHELBY COUNTY
Wells Drilling
Arlington, Garret, Arlington O. & G. Co., 2.

BENTON COUNTY
Rigs
Clarksville, Near Camden, Unknown parties, 1.
Wells Drilling
Clarksville, Near Eva, Benton O. & G. Co., 1.
Rigs, 1; wells drilling 1; total 2.

HAMILTON COUNTY
Rigs
Chattanooga, Near Daisy, Dryden Oil Co., 1.

MURRAY COUNTY
Wells Drilling
Hampshire, McClanaghan, Dr. Doren, 1.

RHEA COUNTY
Wells Drilling
Dayton, Unknown, Unknown parties, 3.

DAVIDSON COUNTY
Wells Drilling
Nashville, Sadie Hyde Stevens, Oliver & Lindsay, 1.

MISSISSIPPI

CHICKASAW COUNTY
Wells Drilling
Houston, J. Flarity, Danner Oil Trust Co., 2

CLAY COUNTY
Rigs
West Point, Unk., Gulf Dev. Co., 1.

PIKE COUNTY
Rigs
Magnolia, Poorhouse, Mississippi Exploration Co., 3.

UNION COUNTY
Rigs
Wallerville, J. Sappington, Minyard Well Co., 1.
Wells Drilling
Wallerville, Woodson, Minyard Well Co., 1.
Rigs, 1; wells drilling, 1; total, 2.

FRANKLIN COUNTY
Wells Drilling
Jackson, McGehe, Fletchering & Co., 1.

COPIAH COUNTY
Wells Drilling
Sec. 6-2-1, Didlake, Marshall Oil Co., 1.
Sec. 23-1-3, White, B. H. White, 2.
Wells drilling, 2.

Classified Wants

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HINDS COUNTY
Wells Drilling
Elton, Unknown, Jackson Oil Co., 2.

JEFFERSON COUNTY
Wells Drilling
Truly, at Truly, Manhattan-Texas Petroleum Co., 2.

JACKSON COUNTY
Wells Drilling
Near Utica, Jackson Oil Co., 1.

LAFAYETTE COUNTY
Wells Drilling
Oxford, K. Banks, Kinsey & Co., 1.

LOWNDES COUNTY
Wells Drilling
Near Artesia, Billups, Anderson Drg. Co., 1.

LINCOLN COUNTY
Wells Drilling
Near Hartman, Anderson Drlg. Co., 1.

WASHINGTON COUNTY
Wells Drilling
Williams, Alhambra O. & G. 3.

ITAWAMBA COUNTY
Wells Drilling
Fulton—J. E. Summers, Stonum & Co. 1.

CALHOUN COUNTY
Rigs
Calhoun City—J. Gregory, W. E. Oil & Gas Co. 1.

LEAKE COUNTY
Wells Drilling
Carthage—Near Conway, Charles H. Steel 1.

MADISON COUNTY
Wells Drilling
Madison—Nichol, Madison County Oil 1.

GRANADA COUNTY
Wells Drilling
Granada, Borden & Co. 1.

CLAIBORNE COUNTY
Rigs
Port Gibson—Bill Young, Miss. Exp. Co. 1.

HOLMES COUNTY
Rigs
Near Coxburg—Section 13-12-1, Free Run Oil Co. 1.

PANOLA COUNTY
Wells Drilling
Sec. 35-27-2—Klihni, Cortland O. & G. Co. 1.

PERRY COUNTY
Wells Drilling
Richton—Donald, Donald Oil Co. 1.

RANKIN COUNTY
Wells Drilling
Sec. 7-3-4—Unknown, Finbine Oil Co. 1.

SCOTT COUNTY
Wells Drilling
Sec. 21-6-9—Graham, Miss. O. & G. Synd. 1.

ALABAMA

MORGAN COUNTY
Wells Drilling
Albany—J. English, Decatur Oil Co. 1.

BALDWIN COUNTY
Wells Drilling
Bay Minette—R. A. Evans, Stell & Co. 1.

SUMTER COUNTY
Wells Drilling
Cortopa—Sam W. Kendall & Co. 1.

HALE COUNTY
Wells Drilling
Greenburg—Hale Oil Co. 1.

SHELBY COUNTY
Wells Drilling
Chelsea—Scott, Cooksey Oil Co. 1.

WILCOX COUNTY
Wells Drilling
Selma—Blue Bell Oil Co. 1.

CLARKE COUNTY
Wells Drilling
Salipta—McCorquedale, Keeughan Oil Co. 1.
At Columbia—Inter-Coastal Oil Co. 1.
Wells drilling, 2.

MADISON COUNTY
Wells Drilling
Huntsville—Unknown, T. H. Mahoney 1.

COLBERT COUNTY
Wells Drilling
Sheffield—Ligon, Spring Valley O. & G. Co. 1.

LAWRENCE COUNTY
Wells Drilling
Moulton—Tulsa parties 1.

GEORGIA

PULASKI COUNTY
Rigs
Hawkensville—H. George, Consolidated Oil Co. 1.

JEFF DAVIS COUNTY
Wells Drilling
Hazelhurst—Unknown, Mid-Georgia Oil Co. 1.

TELFAIR COUNTY
Wells Drilling
At Scotland—Unknown, Telfair Oil Co. 1.

BURKE COUNTY
Wells Drilling
Green Cut—Unknown, Three Creek Oil Co. 1.

WHITEFIELD COUNTY
Wells Drilling
Dallen—Unknown, Richardson O. & G. Co. 1.

JULY AUTO OUTPUT LARGER THAN IN JUNE

A slight improvement in automobile business during the past 30 days will be reflected in July output figures. Preliminary estimates of total production of motor vehicles for the month indicate an increase of from 7 to 8 per cent over June. This would bring production for July to between 260,000 and 265,000 vehicles against 245,790 in June.

Although July output, according to early estimates, is only about 70 per cent of the July, 1923, total, it is expected to exceed that of July, 1922, which was 247,186. The upward turn in production at this time is considered significant in the trade as in the two preceding years output in July was considerably below the total for June, reflecting normal midsummer dullness. Deferred buying caused by the late spring and the unsettlement of general business early this year has tended to keep retail sales fairly high at a time when the industry normally enters its slackest period. The fact that a number of manufacturers have brought out their new models a month or two in advance of the usual time has also had a tendency to stimulate sales.

Manufacturers expect the improvement in automobile buying to continue for at least 60 to 90 days and higher schedules are being worked out this month.

TO PREVENT POLLUTION OF COW BAYOU WATER

HOUSTON, Tex., Aug. 16.—The East Texas Canal Co. has asked for an injunction restraining operators in the Orange Pool from polluting the water of Cow Bayou. The Canal company irrigates rice lands south of the oil field and alleges salt water from the wells in the field injures the rice crops. Tests show there are 124 grains of salt in addition to other poisonous alkali in each gallon of water. The canal company gets its water from the bayou.

Taking care of the salt water from oil wells has always been one of the problems confronting operators in most of the coastal region of south Texas and Louisiana, which is also a rice growing section. In many of the districts the oil operators combine and impound the salt water in reservoirs during the rice growing season from April until September. After the crop has been harvested the impounded waters are then turned into streams, eventually finding an outlet in the Gulf of Mexico. It is probable the Orange operators will be forced to impound the salt water.

WASKOM, TEXAS, FIELD BECOMES OF INTEREST

SHREVEPORT, La., Aug. 16.—Waskom, Texas, has become the center of some interesting development in a territory looked upon as a potential oil and gas field. The first well of interest in Waskom district was drilled by Fuller & Scott on the Furrh lease, 1½ miles northeast of Waskom and 18 miles west of Shreveport, 200 feet west of the Louisiana State line, in Harrison County, Texas.

The well was drilled to the 2,300-foot sand, but blew in at 1,900 feet, between the 6-inch and 8-inch casings, making 5,000,000 feet of gas. This gas is being used for drilling operations in the development which followed this completion, and the well is also spraying several barrels of oil a day, testing 40 gravity. The location is 9 miles north of the Bethany gas field in Panola County and may prove a continuation of this district.

Patt Marr & Thorpe are down 1,200 feet in a test on the J. S. Bland survey, 5 miles north of the Furrh well.

Mays and others set 12½-inch casing in a test on the J. F. Bryson lease, 2 miles south of the Fuller & Scott well, and Fuller & Scott are spudding in for a test on the Waterman Lumber Co. lease, 1 mile south of the discovery well and three-quarters of a mile east of Waskom.

The Magnolia Petroleum Corp., which is laying a line from the Webster Parish gas field to Beaumont and Houston, changed the course of its line several miles in order to go through the new Waskom Field.

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Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS PIPE LINE REPORT FOR JUNE

Runs

	Month	Dy. Av.
*Prairie P. L. Co.	3,720,000	124,000
Gulf P. L. Co.	1,014,230	33,808
Texas P. L. Co.	384,250	12,808
Magnolia Pet. Co.	1,017,848	33,928
Empire P. L. Co.	802,604	26,753
Cosden P. L. Co.	956,874	31,896
*Sinclair P. L. Co.	1,245,000	41,500
*Other lines	7,452,000	248,400
Total June	16,592,806	553,093
Total May	16,495,482	532,112
Difference	97,324	20,981

Shipments

	Month	Dy. Av.
†Prairie P. L. Co.	3,547,891	118,263
Gulf P. L. Co.	1,062,192	35,406
Texas P. L. Co.	347,345	11,578
Magnolia Pet. Co.	991,020	33,034
Empire P. L. Co.	672,411	22,414
Cosden P. L. Co.	1,112,297	37,076
†Sinclair P. L. Co.	1,642,694	54,756
Other lines	7,110,000	237,000
Total June	16,485,850	549,527
Total May	17,093,913	551,413
Difference	608,063	1,886

Stocks

*Prairie Oil & Gas Co.	23,000,000
*Prairie Pipe Line Co.	2,000,000
Gulf Pipe Line Co. and Gypsy Oil Co.	9,353,995
The Texas Co.	7,114,615
Magnolia Petroleum Co.	8,404,361
Empire Pipe Line Co.	3,227,429
Cosden Pipe Line Co.	2,764,309
*Sinclair Crude Oil Purchasing Co.	29,000,000
Carter Oil Co.	18,049,483
*Other lines	8,800,000
Total June	111,714,192
Total May	110,526,322
Difference	1,187,870

*Estimated. †Includes shipments of Texas crude.

Note: Stocks do not include approximately 8,250,000 bbls. of crude oil held in storage on private tank farms and leases.

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for May and June:

	May, '24.	June, '24.
Nat. Transit	199,626.14	185,964.53
S. W. Pa. P. L.	85,544.16	84,784.18
Eureka P. L.	372,494.35	360,470.64
Buckeye P. L. (Macksburg)	258,024.34	245,849.66
Buckeye P. L. (Cleveland)	15,210.59	15,114.06
Buckeye P. L. (Lima, etc.)	145,504.50	149,517.93
Indiana P. L.	12,812.12	13,211.64
Cumberland P. L.	372,609.80	352,152.78
N. Y. Transit	19,947.74	19,920.01
Tidewater P. L.	152,075.52	146,705.68
Pure Oil P. L.	188,558.59	180,842.04
Emery P. L.	35,511.41	35,188.79
Indian Refining	66,447.27	60,342.51
Paragon Dev.	41,802.11	34,461.48
Pittsburgh P. L.	8,903.97	7,792.56
Swiss P. L.	.....	.....
Riggs Refining	5,124.29	4,582.41
Total	1,930,197.00	1,896,900.90
Daily average	62,941.84	63,230.03

—Note: Indian Refining Co. also reported other receipts of 309,849.78 bbls. Paragon Refining Co. had other receipts of 142,866.43 bbls. Paragon Development Co. had other receipts of 4,510.65 bbls. Pittsburgh Pipe Line had other receipts of 510.53 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for May and June:

	May, '24.	June, '24.
National Transit	373,131.02	349,447.12
S. W. Pa. P. L.	253,585.74	236,010.50
Eureka P. L.	112,059.21	123,095.03
Buckeye P. L. (Macksburg)	100,473.73	325,987.67
Buckeye P. L. (Cleveland)	1,214.64	1,451.07
Buckeye P. L. (Lima, etc.)	630,684.61	601,546.36
Indiana P. L.	931,269.90	830,896.76
Cumberland P. L.	151,162.89	133,254.79
Southern P. L.	.....	7,736.86
Crescent P. L.	.....	.....
N. Y. Transit	507,491.63	668,690.48
Northern P. L.	80,309.14	120,463.56
Tidewater P. L.	130,310.86	121,407.61
Pure Oil P. L.	204,887.56	167,288.07
Emery P. L.	38,385.97	43,773.94
Paragon Ref.	181,821.26	154,584.15
Indian Ref.	381,740.52	348,715.10
Paragon Dev.	44,760.63	45,650.74
Pittsburgh P. L.	11,634.19	10,292.56
Total	4,184,923.59	4,290,290.36
Daily average	134,997.50	143,009.68

Note: Indian Refining Co. also reported other deliveries of 91.80 bbls.

Gross Stocks

The gross stocks held by various pipe lines in the oil producing section of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky at the close of May and June were as follows:

	May, '24.	June, '24.
National Transit.	969,330.61	927,391.38
S. W. Pa. P. L.	740,981.21	756,214.63
Eureka P. L.	1,910,892.33	1,857,807.14
Buckeye P. L. (Macksburg)	576,679.85	454,683.96
Buckeye P. L. (Cleveland)	16,959.02	33,775.28
Buckeye P. L. (Lima, etc.)	3,184,697.93	3,506,557.58
Indiana P. L.	638,594.63	617,911.92
Cumberland P. L.	568,123.90	583,831.12
Southern P. L.	512,524.99	596,507.16
Crescent P. L.	80,724.80	77,167.35
N. Y. Transit	704,366.99	725,304.69
Northern P. L.	763,364.39	719,712.09
Tidewater P. L.	.....	.....
Pure Oil P. L.	359,255.82	373,121.94
Emery P. L.	21,790.55	13,932.36
Paragon Ref.	175,717.01	166,689.08
Indian Ref.	101,113.46	118,244.29
Paragon Dev.	11,370.55	8,834.23
Pittsburgh P. L.	7,521.89	5,683.28
Swiss P. L.	.....	.....
Riggs Ref.	1,299.14	834.95
Total	11,335,309.07	11,544,204.42
Increase	412,566.99	208,895.35

Grades of Oil

The following table shows the amount of the different grades of oil held by the Eastern pipe lines at the close of May and June, showing the gross stocks of the above fields:

	May, '24.	June, '24.
Pennsylvania	3,923,093.00	3,668,678.80
Lima	1,113,472.67	1,150,446.32
Kentucky	1,441,241.81	1,518,177.30
Mid-Continent	4,779,382.96	5,135,399.33
Illinois	78,118.62	71,502.67
Total	11,335,309.07	11,544,204.42

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1921	1922	1923	1924
January	64,460	67,702	75,790	62,638
February	70,054	75,096	71,093	68,023
March	68,555	78,531	76,592	68,721
April	65,036	75,462	75,614	71,068
May	65,466	77,592	77,365	63,942
June	62,438	76,193	77,593	63,230
July	69,486	76,435	71,879	.....
August	64,888	79,387	76,910	.....
September	60,110	78,512	72,358	.....
October	57,688	77,209	76,256	.....
November	58,470	75,313	70,762	.....
December	61,000	73,351	69,271	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania Lima and other fields for past four years:

	1921	1922	1923	1924
January	115,550	119,792	171,087	145,513
February	96,736	111,362	164,219	148,732
March	84,168	127,753	185,487	147,098
April	101,015	127,068	170,751	147,611
May	100,253	127,840	177,102	134,997
June	105,037	137,638	173,598	143,010
July	97,096	137,872	168,330	.....
August	101,652	153,275	142,766	.....
September	117,440	158,761	137,266	.....
October	105,728	165,345	134,597	.....
November	121,803	165,677	131,426	.....
December	104,023	172,861	139,909	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields including oil received from other lines, at the close of each month for the past three years:

	1922	1923	1924
January	16,297,858	14,040,567	12,997,391
February	17,009,293	14,028,437	11,844,000
March	16,877,937	13,873,146	10,906,710
April	16,777,842	13,737,575	10,922,710
May	16,948,962	13,816,622	11,335,309
June	16,810,169	14,541,283	11,544,204
July	16,669,286	14,645,584	.....
August	16,235,220	14,770,539	.....
September	16,228,545	14,803,444	.....
October	15,757,746	14,804,111	.....
November	15,171,972	14,167,726	.....
December	14,323,765	13,444,361	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

1923—	Receipts.	Shipments.	Stocks
June	2,927.71	4,743.78	21,329.18
July	2,996.64	1,471.57	23,445.25
August	3,199.97	3,769.34	23,874.88
September	2,829.79	6,832.38	19,842.27
October	2,694.23	5,251.81	17,285.19
November	2,980.66	4,150.98	16,114.87
*December	2,893.07	3,499.27	15,508.67
1924—			
January	2,942.19	8,641.71	9,843.75
February	2,151.78	1,926.55	10,073.98
March	3,398.78	1,716.38	11,756.42
April	3,311.84	3,066.78	12,001.54
May	3,036.50	6,338.21	10,699.83
June	3,188.31	407.01	13,481.13

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, July 1	2,315,955.0
Runs from wells	695,703.1
Other receipts	130,365.7
Regular deliveries	474,421.6
Other deliveries	336,594.0

The amount of Illinois oil run by the Tide Water Pipe Line Co. in June was 39,358.53 bbls., and deliveries were 53,976.12 bbls. Adding these figures to those of the Illinois Pipe Line Co., makes the runs and deliveries from the Illinois field as follows:

1923—	Runs.	Deliveries.
June	582,511.83	509,131.77
July	594,653.42	493,369.17
August	594,747.94	367,153.12
September	542,561.59	395,925.0
October	576,867.09	347,213.0
November	546,959.43	395,693.0
December	534,185.04	393,643.0
1924—		
January	493,337.25	250,721.0
February	535,490.70	353,611.1
March	611,289.36	389,543.0
April	514,356.43	339,541.1
May	751,080.44	510,474.0
June	726,060.87	528,493.3

The Tide Water Pipe Co. Ltd., also delivered in June, 313,062.93 bbls. of Oklahoma oil. The total deliveries of all grades by the Tide Water were 394,326.87 bbls.

AVERAGE WEEKLY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Av. bbls. per wk.—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans-Baton Rouge	Pt. Arthur Sabine Pass	Tampa	Total	Total All Ports
March	42,455	17,383	623,455	209,321	77,455	970,067	.....	.....	.....	.....	.....	970,067
April	39,669	17,969	614,369	88,200	52,269	812,476	.....	.....	.....	.....	.....	812,476
May	42,903	33,194	615,709	92,706	61,642	846,154	.....	70,127	.....	.....	70,127	916,281
June	121,800	34,300	581,000	103,369	51,331	891,800	.....	.....	.....	.....	.....	891,800

AVERAGE WEEKLY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Av. bbls. per wk.—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans-Baton Rouge	Pt. Arthur Sabine Pass	Tampa	Total	Total All Ports
January	112,800	118,200	552,000	97,800	215,800	603,200	258,800	248,000	137,800	20,800	772,200	1,539,800
February	134,750	175,750	195,250	102,750	293,250	907,750	272,500	296,000	190,250	36,500	895,250	1,803,000
March	148,358	141,806	283,458	124,642	292,642	990,906	463,806	365,358	223,552	55,545	1,108,261	2,099,167
April	152,369	154,931	913,900	94,962	248,969	971,131	382,900	348,131	119,000	15,869	865,900	1,793,031
May	156,485	134,602	288,903	59,612	300,097	939,699	315,679	295,358	199,591	38,164	848,792	1,788,491
June	120,169	108,731	*434,931	68,131	239,400	971,362	412,741	251,762	169,831	33,831	868,165	1,839,527

GROSS PRODUCTION AND DAILY AVERAGE IN THE UNITED STATES FOR 12 MONTHS

1923—		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Wyoming-Montana	Other Fields	Total
July:	Month	25,262,082	15,260,184	11,258,042	2,448,566	3,713,738	1,882,481	4,245,547	3,334,110	67,404,750
	Daily average	814,906	492,264	382,518	78,986	119,798	60,725	136,953	107,562	2,174,702
August:	Month	26,440,005	14,049,076	12,157,429	2,316,320	3,292,580	1,952,349	4,290,406	3,479,077	67,977,242
	Daily average	852,903	453,196	392,172	74,720	106,212	62,979	138,400	115,969	2,192,193
September:	Month	25,762,487	12,812,220	12,879,682	2,234,730	3,164,900	1,787,430	4,561,550	3,269,551	66,472,500
	Daily average	858,750	427,074	429,323	74,491	105,497	59,581	152,052	105,469	2,215,750
October:	Month	24,576,400	12,961,782	15 933,383	2,336,346	3,120,274	1,837,990	3,540,880	3,475,913	67,782,968
	Daily average	792,787	418,122	513,980	75,366	100,654	59,290	114,222	112,126	2,186,547
November:	Month	22,397,848	12,334,620	15,656,507	2,268,840	2,973,000	1,816,860	4,792,466	3,138,464	65,378,605
	Daily average	746,595	411,154	518,550	75,628	99,100	60,562	159,782	104,615	2,179,536
December:	Month	21,899,247	12,232,259	10,065,856	2,345,150	4,017,850	1,919,574	8,304,326	3,147,812	65,932,074
	Daily average	706,427	394,589	324,705	75,650	129,608	61,922	106,591	101,542	1,901,687
1924—										
January:	Month	20,912,500	12,292,833	10,336,643	2,233,878	3,686,680	1,601,175	4,636,230	2,950,500	58,644,439
	Daily average	674,597	396,543	333,449	71,738	118,925	51,651	149,556	95,177	1,891,437
February:	Month	19,341,226	12,236,637	10,495,486	2,112,853	3,302,750	1,497,450	4,168,450	2,997,700	56,152,952
	Daily average	666,939	421,953	361,913	72,857	113,888	51,629	143,740	103,369	1,936,315
March:	Month	19,913,262	13,336,851	12,077,617	2,206,425	3,832,695	1,701,593	3,993,890	3,258,000	60,370,433
	Daily average	642,363	430,221	389,601	71,175	125,248	54,890	128,835	105,097	1,947,433
April:	Month	19,299,849	13,462,240	11,725,830	2,265,090	4,068,225	1,495,582	3,901,755	3,231,000	59,429,571
	Daily average	643,328	448,408	390,861	75,503	135,608	49,853	130,058	107,700	1,981,152
May:	Month	19,833,576	14,248,067	11,923,316	2,486,696	4,659,117	1,596,701	4,033,564	3,355,000	62,136,037
	Daily average	639,793	459,615	384,623	80,216	150,291	51,507	130,109	108,226	2,004,388
June:	Month	18,807,999	14,457,390	11,515,020	2,473,320	4,756,443	1,811,880	3,798,634	3,211,500	60,332,386
	Daily average	626,933	481,913	383,834	82,444	158,548	60,419	126,621	107,050	2,011,077
	Total 12 months	264,446,481	159,674,149	145,924,811	27,718,214	44,638,252	20,901,065	49,267,698	38,848,627	761,419,297
	Daily average	722,531	436,268	398,702	75,733	121,962	57,107	134,611	106,144	2,080,818

Albany—J. English, Decatur Oil Co. 1.

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"The Bit with the Bite"

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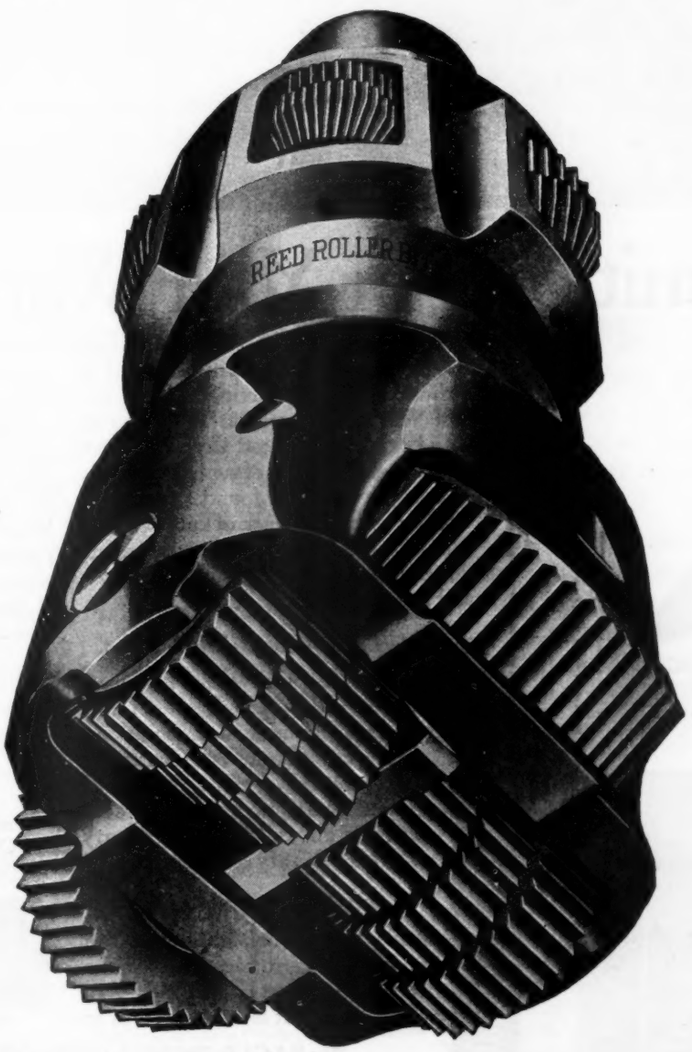

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Bit and reamer body (in two separate units) designed for superior strength and each made in solid one-piece casting.

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The Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 15, 1911, at the postoffice at Tulsa, Okla., under the Act of March 3, 1879.

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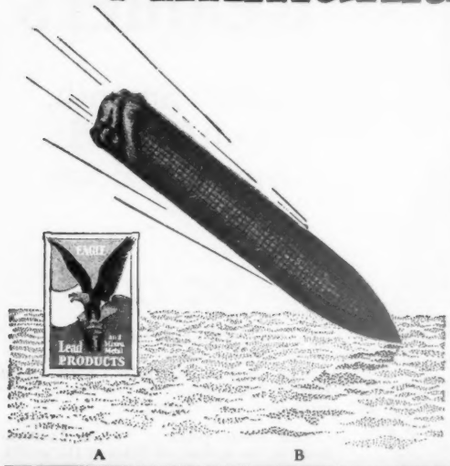
Daily average	722,531	436,268	398,702	75,733	121,962	57,107	134,611	106,144

Ammunition For Your War on Water



OCCASIONALLY Oil Wells are met with which will not yield to ordinary plugging practices. During the past year the Petroleum Engineers of The Eagle-Picher Lead Company have worked on a number of such cases.

In every case they found that failure was due either to a lack of knowledge of conditions to be met in the oil bearing horizon or the use of improper methods and materials.

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Eagle Lead Wool Oil Well Plugs have been developed by The Eagle-Picher Lead Company to meet such conditions.

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SPECIFICATIONS

Style	Size of Container	Size of Casing	Quantity Lead Wool to Fill Container
"A"	3"x 36"	for 4¼" and 4½" casing	25 lbs.
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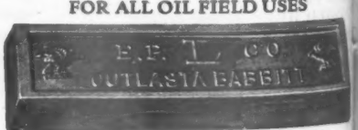
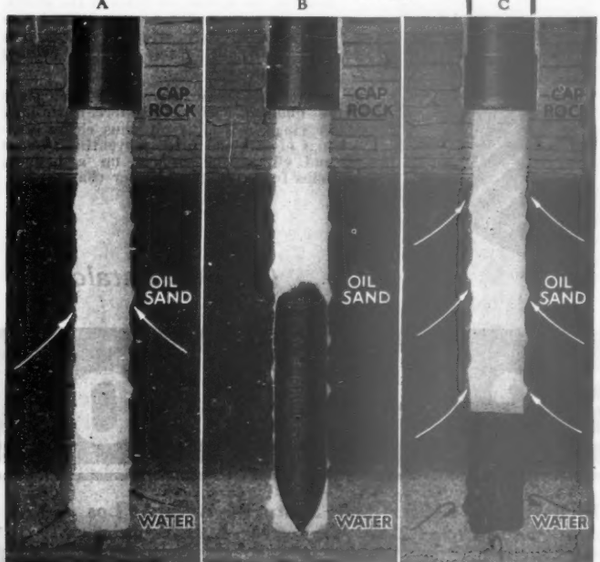
"C"	5"x 36"	for 6¼" casing	55 lbs.
"D"	5½"x 36"	for 6⅝" casing	60 lbs.
"E"	7"x 36"	for 8" and 8¼" casing	75 lbs.

Send for your copy of "Lead Wool for Plugging Oil Wells."

FOR ALL OIL FIELD USES



Eagle Dreadnaught and Outlasta Babbitt



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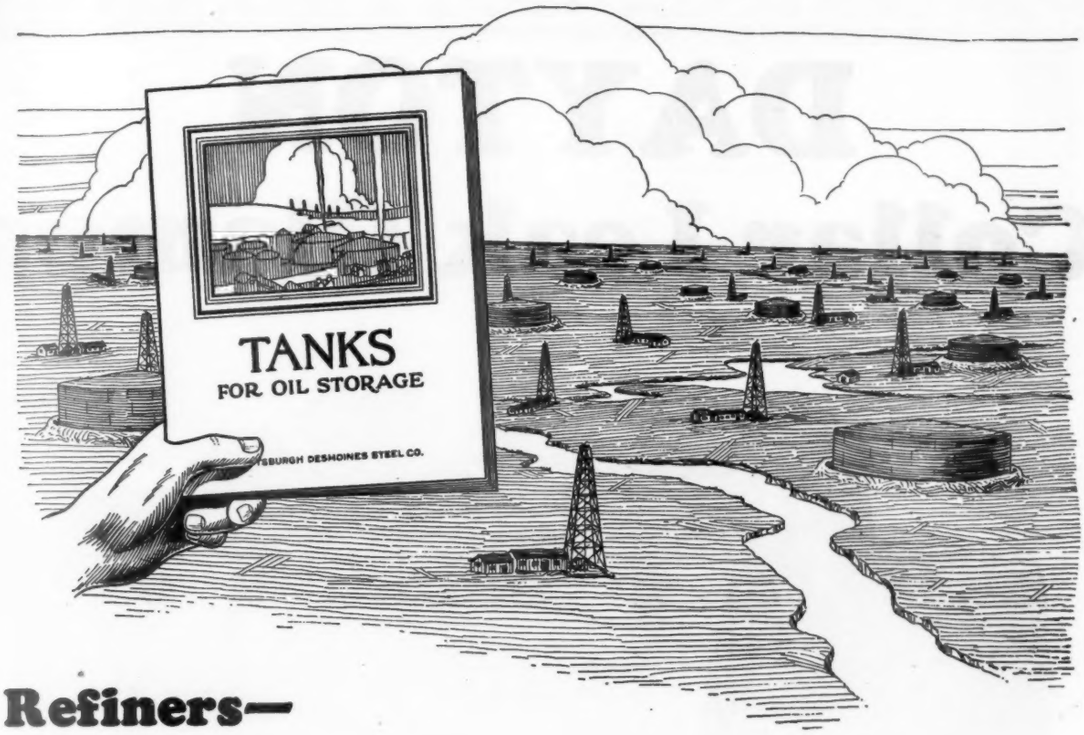
The Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 15, 1911, at the postoffice at Tulsa, Okla., under the Act of March 3, 1879.



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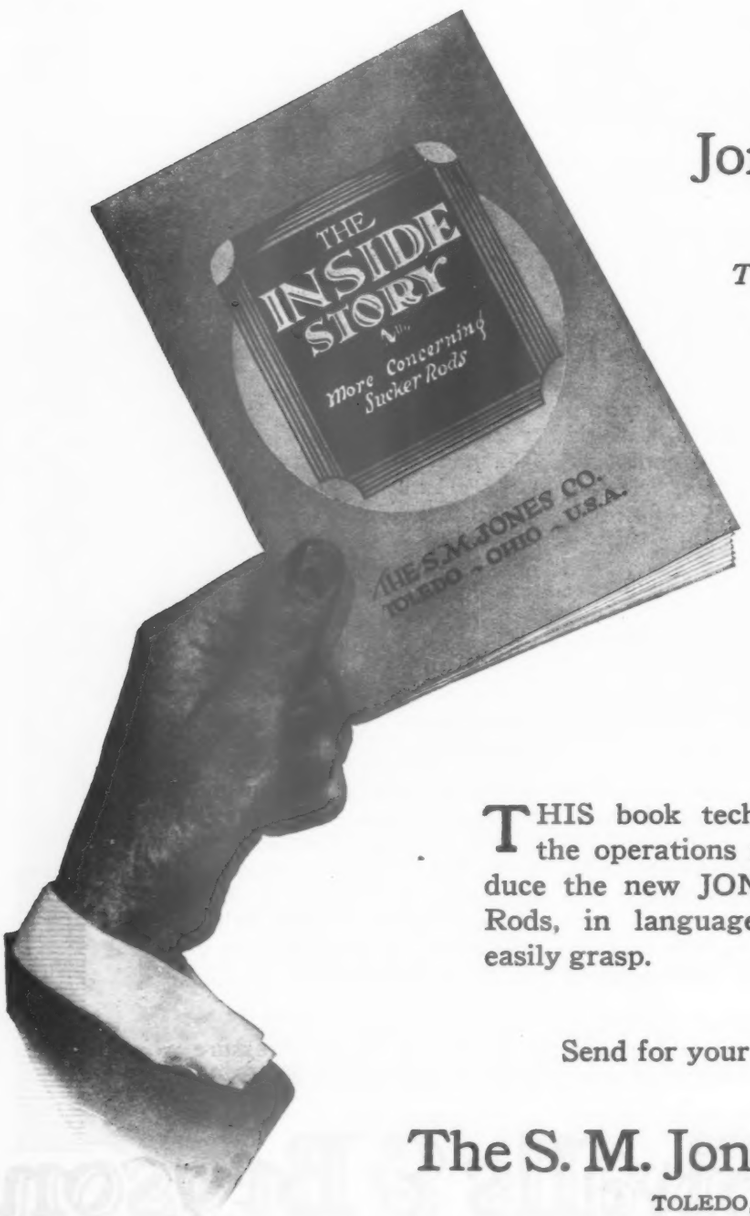

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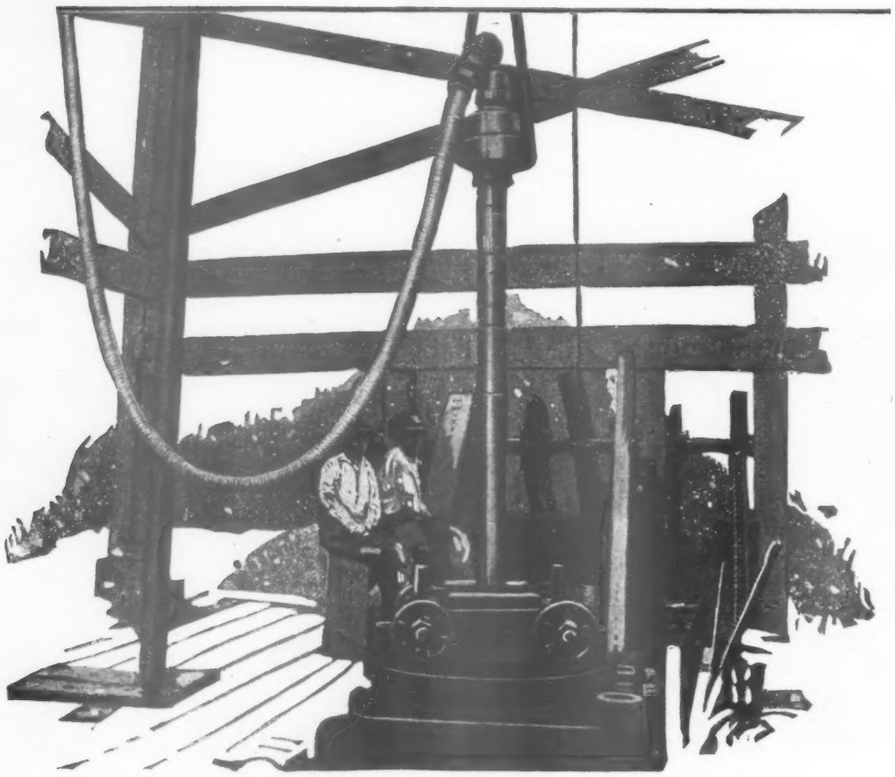

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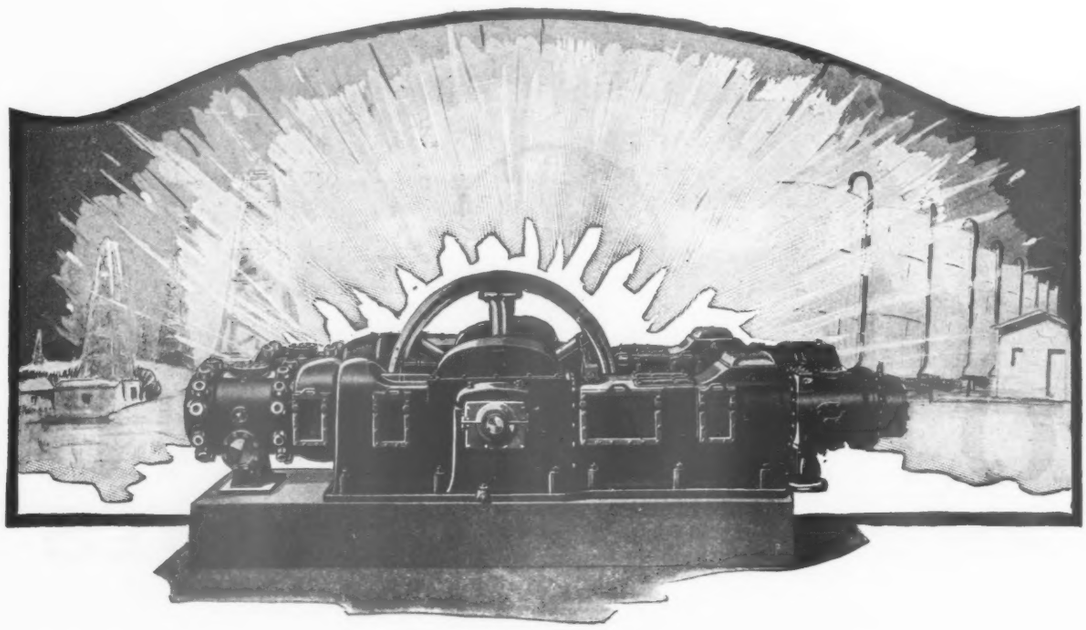

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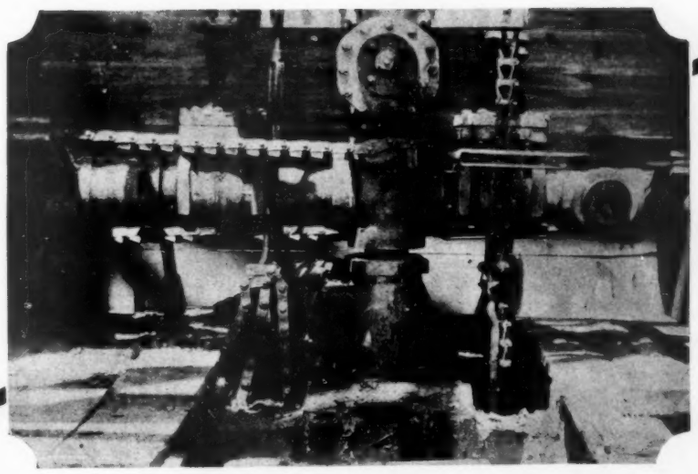

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Oil men have asked us what it is in Jarecki Malleable Fittings that makes them so uniformly durable. Is there really a difference or are all malleable castings the same?

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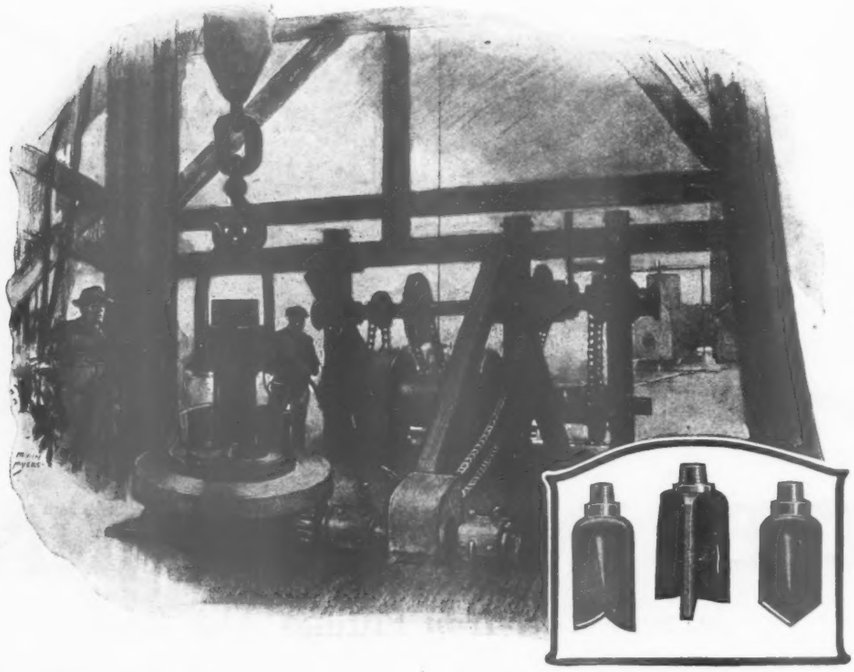

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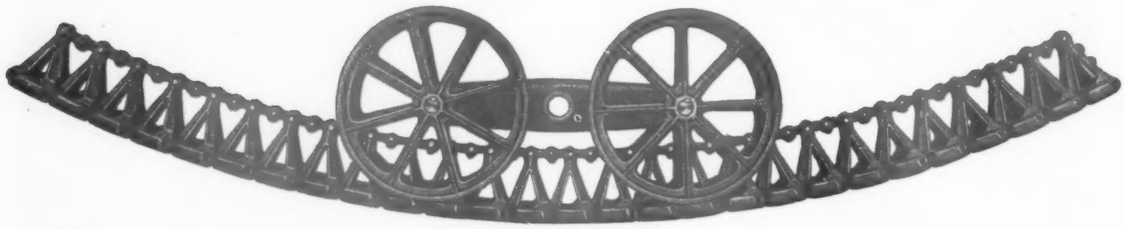
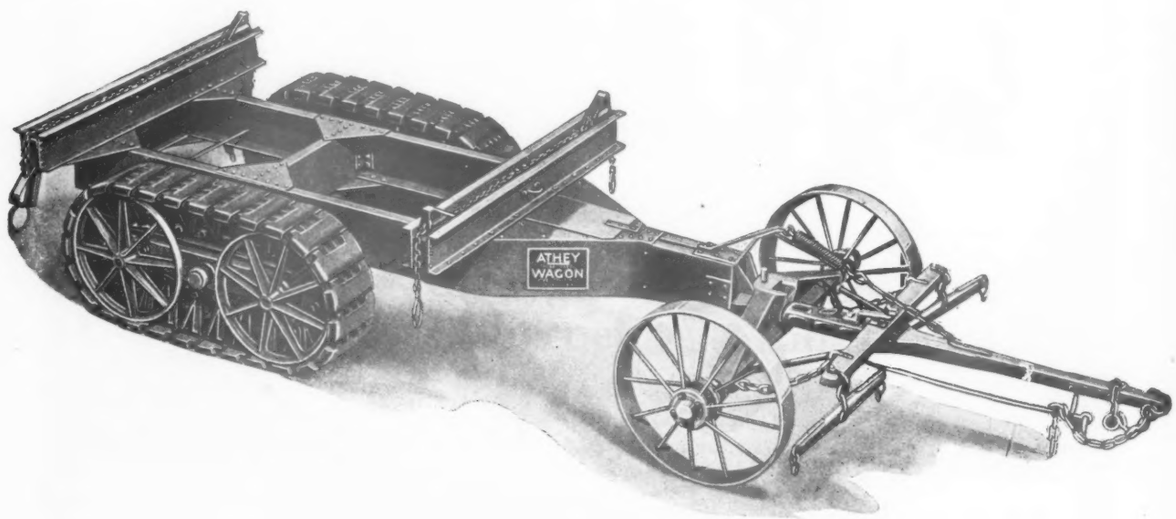


The idea of the ATHEY TRUSS WHEEL is highly ingenious and so simple that it is hard to understand why someone did not think of it before.

The portion of this track carrying the load is always fully unfolded, rigid, level and at rest. Not a pin or hinge moves. Parts are subjected, therefore, to no friction while carrying the load. This greatly reduces wear and lengthens life of pins and bearings.



Wheels operate on roller bearings so that friction in the entire load-bearing unit is reduced almost to the vanishing point. Every detail of design and construction will be found to have been carefully perfected. The result is that ATHEY equipment stands up under hard service for years, with little or no expense for repairs.

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IT BRIDGES THE SOFT SPOTS

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